Established 1835.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, And Engineering Progress.

[*The* MINING JOURNAL *is Registered at the General Post Office as a Newspaper and for Transmission Abroad.*]

No. 3101.—VOL. LXV. LONDON, SATURDAY, JANUARY 26, 1895. PRICE ..... SIXPENCE. BY POST, £1 4s. PER ANNUM

A. CORNFORTH AND CO.,
STOCK BROKERS AND MINING SHARE DEALERS,
33, OLD BROAD STREET, E.C.; AND Mining Exchange, London.

BUSINESS IN ALL CLASSES OF STOCKS AND SHARES. SPECIAL BUSINESS in KAFFIR Shares. Prompt Delivery made a special feature.
Mining Circular free on application.
BANKERS: CITY BANK.—Telegraphic Address: "Athelney, London."

ASSAY OFFICE AND LABORATORY.
B. KITTO'S,
30 and 31, ST. SWITHIN'S LANE, LONDON, E.C.

ASSAYS MADE OF ALL ORES. ANALYSES.
ASSAYING TAUGHT.

J. A. JONES, Mining Engineer
(M.Inst.M.M., M.N.Eng.Inst.M.M.E.
GIJON (ASTURIAS), SPAIN.

MINERAL PROSPECTING
AND
BORINGS FOR WELLS.
Large Experience. Quick Speed Work Guaranteed.
APPLY TO
VIVIAN'S BORING & EXPLORATION CO.,
(LIMITED)
WHITEHAVEN.
Deepest Borehole in England (3195 feet) put down by this Company who have completed about 56 miles of boring.
Telegraphic Address: "DIAMOND, WHITEHAVEN."

PUMPING MACHINERY.

See Illustrated Advertisement every Third Week.

HATHORN, DAVEY and CO., LEEDS.

THE WEST AUSTRALIAN REVIEW.
A WEEKLY JOURNAL
For ALL INTERESTED in WEST AUSTRALIAN AFFAIRS.
EVERY THURSDAY, THREEPENCE.
Edited and owned by **ALBERT F. CALVERT, F.R.G.S.**, &c.
Author of "Discovery of Australia;" "Mineral Resources of Western Australia," &c.
"THE WEST AUSTRALIAN REVIEW" contains Special Articles on the Gold Fields of Western Australia.
OFFICE—47, OLD BROAD STREET, E.C.

CANNOCK CHASE COAL BY CANAL AND RAILWAY.

THE COMPANY SEND COAL BY RAILWAY in Trucks to all Stations, and load Canal Boats at their extensive Wharves on the Anglesey Branch of the Birmingham Canal, adjoining the Colliery; and also at Hednesford Basin, Cannock. For Prices, apply to
J. NEWLAND BROWN,
WARWICK CHAMBERS, CORPORATION STREET,
BIRMINGHAM.
Retail Department: COLMORE CHAMBERS, 1, NEWHALL ST., Birmingham.
London Office: 9 and 10, Southampton Street, High Holborn, W.C.

GOLD ASSAYING, &c.

GENTLEMEN having only a short time at their disposal can obtain SPECIAL INSTRUCTION in ASSAYING ORES of all kinds.
For Prospectuses, &c., apply to
MARTIN and PETHYBRIDGE,
ASSAYERS, &c., LABORATORY AND TESTING WORKS
183, KING'S ROAD, CHELSEA, S.W.

Complete Analysis of Constituents of any Ore from £1 1s. to £2 2s.
GOLD ASSAYS CONDUCTED WITH CHECK, 7s. 6d. PER SAMPLE.
GOLD ORES PRACTICALLY TESTED BY STAMP BATTERY
And other processes.

ASSAYING AND METALLURGY.

SPECIAL facilities are given for INSTRUCTION and PRACTICE in the ASSAYING and TREATMENT of GOLD and all other ores in the Metallurgical Laboratories of Kings College, Strand, London. Persons of all ages, are admitted at any time for a period of one month or onwards. Special arrangements are made for those who cannot devote their whole time to the work. The laboratory, being open every day, is open 7 to 9 on Friday evenings. For further particulars apply to PROFESSOR HUNTINGTON.

Messrs. PETER WATSON and Co.,
8, FINSBURY CIRCUS, LONDON, E.C.
(NEAR TO THE STOCK EXCHANGE, AND THE MINING EXCHANGE.

ALL ORDERS and TELEGRAPHIC MESSAGES to Buy or Sell Railway, Bank, Mine, and other Shares and Stocks punctually attended to, at Net Price, for Cash, or for Fortnightly Settlements, with advice as to Purchases or Sales, to be addressed to Messrs. PETER WATSON and Co.

Mr. J. GRANT MACLEAN,
Sharebroker and Ironbroker, Stirling, N.B.
Refers to his Share Market Report on page 110 of to-day's Journal.

A. and Z. DAW,
CONSULTING MINING ENGINEERS AND MINE MANAGERS,
11, QUEEN VICTORIA STREET, LONDON, E.C.
INSPECT AND REPORT UPON FOREIGN METALLIFEROUS MINES, AND UNDERTAKE THEIR MANAGEMENT AND ADMINISTRATION.

"AUSTRALIAN GOLD FIELDS:"
A MONTHLY RECORD OF
AUSTRALIAN GOLD MINES and MINING COMPANIES,
CONTAINING
The LATEST CABLE ADVICES, MINE REPORTS, &c. STATISTICS of OUTPUT, YIELD, & DIVIDENDS, with MAPS and PLANS of WORKINGS.
COMPILED BY
F. G. McCUTCHEON.
Price 3d.; Post free, 3½d.; Annual Subscription (including Postage) 4s. Gold Mining Shares Bought and Sold. Latest information given to Correspondents with reference to Australian Mines.
PUBLISHED AT 5, LOTHBURY, LONDON, E.C.; and at Messrs. W. H. SMITH and SONS' Bookstalls. Orders received at all BOOKSELLERS and NEWS AGENTS.

THE AUSTRALIAN MINING STANDARD
IS THE
ONLY RECORD OF MINING, FINANCIAL, and ENGINEERING PROGRESS IN THE SOUTHERN HEMISPHERE.
PUBLISHED WEEKLY. ILLUSTRATED.
Subscription, 30s. per annum (payable in advance).
Dr. E. D. PETERS, Jun., says:—"*The Mining Standard* is the best Mining Journal in the World, save one."
THE AUSTRALIAN MINING STANDARD COMPANY, LIMITED,
Printers and Publishers,
SYDNEY AND MELBOURNE.

807 pp. Royal 8vo., Well Bound in Cloth, 21s.
McNEILL'S
MINING AND GENERAL TELEGRAPHIC CODE,
Containing over Forty-four Thousand Phrases.
By BEDFORD McNEILL, F.G.S., &c., Mining Engineer.
"Undoubtedly the most complete technical code existing."—*Industries.*
LONDON: WHITEHEAD, MORRIS & Co., LTD., 9, Fenchurch St., E.C.
CAPE TOWN: E. R. MORRIS, Belfast Chambers.
ADELAIDE, PERTH, BROKEN HILL, } AUSTRALIA, E. S. WIGG & SON.

BRITISH GUIANA AND THE NEW GOLD INDUSTRY.

BRITISH GUIANA BANK.
Incorporated by Ordinance of the Governor and Court of Policy of British Guiana 11th November, 1836.
Confirmed by the Queen in Council, 6th October, 1838.
SUBSCRIBED CAPITAL..... $1,400,000 | PAID-UP..... $926,520
RESERVE FUND, $288,000
CHAIRMAN: JAMES THOMSON.
HEAD OFFICE: GEORGETOWN, DEMERARA.
MANAGER: GEO. W. LANE. | ACCOUNTANT: E. J. N. THOMAS.
BRANCH OFFICE: NEW AMSTERDAM, BERBICE,
AGENTS. London..... Smith, Payne, and Smiths.
New York..... Maitland, Phelps, and Co.
British North America Bank of British North America.
Newfoundland ..... Union Bank of Newfoundland.
Current Accounts opened in accordance with the usual practice of Bankers.
Money Received on Deposit on Interest. Bills of Exchange negotiated.
Letters of Credit issued by London Agents on Demerara free of charge.
Raw Gold Purchased or Shipped on Consignment.
Bills Collected and every other description of Banking Business transacted.

THE BANK OF AFRICA (LIMITED).
ESTABLISHED 1879.
Head Office, 113, Cannon Street, London.
SUBSCRIBED CAPITAL £750,000
Paid-up, £250,000; Reserve Fund, £135,000.
General Manager—JAMES SIMPSON, Cape Town.
BRANCHES
Aliwal North, Cape Town, Cradock, East London, Grahamstown, Kimberley King Williams Town, Oudtshoorn, Paarl, Port Elizabeth, Queen's Town Bethlehem, Bloemfontein, Fauresmith, Harrismith, Ladybrand, Winburg Durban, Newcastle, Pietermaritzburg, Barberton, Johannesburg, Pretoria Vrijheid, Beira, Delagoa Bay.
The Bank issues drafts, makes telegraphic remittances, buys and collects bills, and conducts all kinds of banking business.
Deposits received on terms which may be ascertained on application.
R. G. DAVIS, Secretary.

EDWARD HALSE, A.R.S.M.,
MINING ENGINEER,
Memb. Inst. Mining and Metallurgy; Memb. N. Engl. Inst. Mining and Mechanical Engineers, &c.,
EXAMINES & REPORTS ON MINES in REPUBLIC of MEXICO, APARTADO 512, MEXICO, D.F.
McNEILL'S CODE USED.

R. C. CAMPBELL-JOHNSTON.
(OF SWANSEA, INDIA, AND THE STATES.)
THREE YEARS IN BRITISH COLUMBIA.
MINING ENGINEER AND METALLURGIST,
POSTAL ADDRESS: BOX 40 VANCOUVER, B.C.
CABLE ADDRESS: CAMPBELL-JOHNSTON, VANCOUVER.
A.B.C. CODE.
MINES EXAMINED AND REPORTED ON, DEVELOPED AND MANAGED.
Furnaces, Mills, and Mining Plants Planned and Erected.
ORES BOUGHT AND SOLD.

THE GOLD FIELDS OF WESTERN AUSTRALIA.

ALBERT F. CALVERT,
MINING ENGINEER.
Author of "Western Australia and its Gold Fields"—"The Discovery of Australia"—"The Mineral Resources of Western Australia," &c., &c.
Editor and Proprietor of the *West Australian Review*, a Weekly Newspaper devoted to Westralian interests.
Undertakes MANAGEMENT, INSPECTIONS, SURVEYS, and guarantees reliable Mining Reports on all West Australian and other Mines.
Writing to the *Financial News* of 23rd November, on the Gold Fields of Western Australia, Lord Percy Douglas says:—"From his intimate knowledge of the subject, gained by personal experience in Western Australia, as well as on nearly every gold field in the world, I consider there is no one better qualified to express an opinion on the subject than he (Mr. Albert F. Calvert). In fact, he is the only man that I know of in this country who has visited all the gold fields of this immense colony."
Address — 47, Old Broad Street, E.C.
Telegrams and Cables—"Quarterage, London."

Messrs. PARKYN and CO.,
MINE OWNERS AND MANAGERS, CONSULTING MINING ENGINEERS AND MINING SPECIALISTS,
UNIVERSAL MINING OFFICES, ROCHE, CORNWALL.
INSPECTIONS, EXPLORING, OPENING-UP and MANAGEMENT of MINES undertaken at home or abroad. Have opened a Mining Inquiry Department, in which, upon payment of a fee of 5s., we reply to any questions relating to Mining matters. Should be consulted by all interested in Mines and Mineral Properties. Latest information re the Gold Fields of Australia.

WESTERN AUSTRALIA.
Mr. BRENTON SYMONS, F.C.S., M.I.C.E.,
MINING ENGINEER,
Who has just sailed for the Mining centres of Coolgardie, Murchison, &c., is prepared to undertake INSPECTIONS and SURVEYS, and to Report and Advise upon Mines, Machinery, &c.
For terms and particulars apply to Messrs. PERKINS and St. STEPHENS Consulting Mining Engineers, 1, Sherborne Lane, King William Street, London, E.C.

E. HENRY DAVIES, F.G.S.,
CONSULTING MINING ENGINEER,
6, GREAT WINCHESTER STREET, LONDON, E.C.
Author of "Machinery for Metalliferous Mines."
Joint Author of "Metalliferous Mines and Mining."
"Earthy and other Minerals and Mining."
Undertakes the INSPECTION and MANAGEMENT of MINES at home and abroad, and the introduction of approved Properties to Capitalists.
Minerals of all descriptions purchased in large or small quantities.

J. M. SMITH,
Late Manager of the "AUSTRALIAN MINING STANDARD," is now located at
COOLGARDIE, WESTERN AUSTRALIA,
And is prepared to act as Trustee or Local Agent for English Companies. Mines Inspected on reasonable fee. First-class Properties for Sale. Highest references and credentials.
Use NEALE and MOREING'S Code.

Captain Wm. WILLIAMS, M.A.I.M.E.,
MINE MANAGER, CONSULTING MINING ENGINEER, &c.
76, Eyre Street, and 25, Mining Exchange, BALLARAT, VICTORIA,
Undertakes the INSPECTION, REPORTING, and MANAGEMENT of MINES and MACHINERY in any part of Australasia. Also the Collection of Mines for absentees.
(UPWARDS OF 20 YEARS HIGHEST REFERENCES AND CREDENTIALS.)

AUSTRALIAN MINERALS.

COLLECTIONS of AUSTRALIAN MINERALS for Show Case, or for technical purposes supplied to order. Price from £2 2s. upwards On receipt of order with remittance a collection will be made up and dispatched without delay.
MINES REPORTED ON.
J. B. AUSTIN, Mineralogist, Adelaide, S.A.

FOR SALE, the following low-priced Shares:

500 Lisbon-Berlyn, 5/- 6d.	500 Coolgardie, 1s	200 West Mallina, 3s. 6d
100 Idaho, 4s.	200 African Consltd., 5s. 9	500 Caratal, 1s. 6d.
500 Guy Fawkes, 11s.	250 South Reefs, 23s. 6d.	100 Kabonga, 3s. 3d.
200 New Queens, 7s.	200 Day Dawn, 1 s.	100 Coolgardie (Sterlawe), 7s.
100 Massi Kessi, 12s. 9d.	5 0 Eaglehawke, 3s. 6d.	

Special business in Cornish shares.
Apply, W. SEWARD and Co., 7, Drapers' Gardens, E.C.
Telegraphic Address—"SEWARD, London."

For Index to Advertisements see Page 86. For Literary Contents see Page 100.

INDEX TO ADVERTISEMENTS.

(THOSE WITHOUT NUMBER OF PAGE DO NOT APPEAR IN THIS ISSUE.)

	PAGE.
Aird, J. ... ... Tubes	—
Austin, J. B. ... ... Mineralogist	85
Bandell, H. E. ... ... Agent for Foreign Houses, &c.	—
Bank of Africa, (Ltd.)	85
British Guiana Bank	85
Bennett, Sons, and Co. ... ... Fuse Manufacturers	—
Birkbeck Bank	107
Bowes-Scott and Western ... ... Mining Machinery	—
Bute Works Supply Company (Limited) ... ... Steel Rails, &c.	93
Business Cards	107
Campbell-Johnston, R. C. ... ... Mining Engineer	85
Calvert, Albert E. ... ... Mining Engineer	85
Cannock Chase Colliery Company ... ... Coal Exporters	85
Cassel Gold Extracting Co. (Ltd.) ... MacArthur-Forrest Process	108
Champion Rock Borer Co. ... ... Rock Borers	87
Clarkson-Stanfield Concentrator (Ltd.) ... Dry Concentration	81
Clayton and Shuttleworth ... ... Engineers	110
Companies and Legal Announcements	107
Cornforth and Co. ... ... Share Dealers	85
Cotton Powder Co. (Ltd.) ... ... Explosives	112
Davey, Paxman and Co. ... ... Mining Machinery	—
Davies, Henry ... ... Mining Engineer	85
Davis and Son ... ... Mining, &c., Instruments	85
Daw, A. and Z. ... ... Mining and Civil Engineers	85
Daw, A. and Z. ... ... Rock Drills	109
Delta Metal Co. (Ltd.) ... ... Metal	108
Dixon and Co. ... ... Iron Roofs and Buildings	—
Elliman, Sons, and Co. ... ... Embrocation	111
Epps and Co. (Limited) ... ... Cocoa	109
Felten and Guilleaume ... ...Wire Ropes, &c.	—
For Sale	107
Francis and Jenkins ... ... Copper Works Ladles	—
Fraser and Chalmers (Ltd.) ... ... Mining Machinery	89
Frictionless Engine Packing Company ... Engine Packing, &c.	87

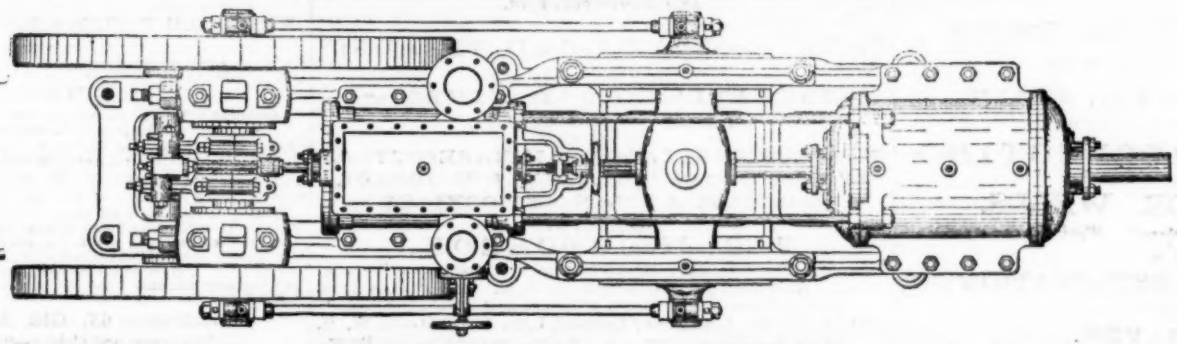
	PAGE
Galloway's (Ltd.) ... ... Steam Boilers	—
Gates Ironworks Co. ... ... Rock and Ore Breaker	110
Gilkes and Co. ... ... Turbines	109
Green, G. ... ... Ore Dressing Machinery	88
Hardy Patent Pick Co. ... ... High Class Tools	110
Hathorn, Davey and Co. ... ... Pumping Engines	—
Halse, E. ... ... Mining Engineer	85
Holman Bros. ... ... Rock Drills and Compressors	89
Howes, S. ... ... Turbines	112
Humboldt Engineering Works Co. ... ... Mining Machinery	—
Humble, S., jun. ... ... Hand Power Fan	—
Huntington, Professor ... ...Instruction in Assaying	85
Ingersoll-Sergeant Drill Co, of America, Rock Drills and Compressors	86
Ireland, James ... ... *Colliery Ready Reckoner*	1 7
Jones, J. A. ... ... Mining Engineer	85
Kitto, B. ... ... Assay Office	85
Krupp Grusonwerk ... ... Ore Extraction Machinery	—
Lambert's Wharfage Company	93
Larmuth, T., and Co ... ... Mining Machinery	—
Lancashire Patent Belting Co. ... ... Mining Specialities	—
Lancaster and Tonge ... ... Steam Pistons	87
Lloyd and Lloyd ... ... Tubes	—
Maclean, J. Grant ... ... Share and Iron Broker	85
McNeill's Code	85
Marsden, H. R. ... ... Stone Breakers and Ore Crushers	112
Martin and Pethybridge ... ... Assay Laboratory	85
Merry and Co. ... ... Assayers	—
Merton and Co. ... ... Aluminium	88
Messrs. Parkyn and Co. ... ... Mine Owners and Managers	85
Miners Safety Explosive Co. (Ltd.) ... ... Explosives	—
Nobel's Explosives Co. (Ltd.) ... ... Water Cartridges, &c.	111
Pacific Mining Agency and Trust Company... Commission Agency	93
Parkin ... ... Signal Bells	108

	PAGE.
Pass and Son ... ... Buyers of Lead Ashes, &c.	93
Phosphor Bronze Co. (Ltd.) ... ... Bulls Metal, &c.	112
Piggott and Co. ... ... Welded and Rivetted Pipes	—
Publications	107
Reliance Oil and Grease Co. "Valve Oleine" Cylinder Lubricant	108
Robey and Co. ... ... Engines and Ore Crushers	111
Roburite Explosives Co. (Ltd.) ... ... Explosives	—
Ropeways Syndicate ... ... Aerial Wire Ropeways	109
Rose, James ... ... *New Guide to the Iron Trade*	93
Sales by Auction	107
Sandycroft Foundry Company ... ... Mining Machinery	—
Sandycroft Foundry Company ... ... Electrical Machinery	109
Schram and Co. ... ... Rock Drills and Compressors	88
Seward, William ... ... Share Dealer	85
Shipping	107
Smith, J. M. ... ... Mines Inspected	85
South African Trust and Finance Co. (Ltd.) ...Investments, &c.	—
Spencer, John ... ... Iron and Steel Tubes	—
Stanley, W. F. ... ... Mathematical Instruments	84
Stewart and Clydesdale ... ... Iron and Steel Tubes	88
Symons, Brenton ... ... Mining Engineer	85
Tacknote ... ... *Form of Licence to Explore*	107
Tangyes Limited ... ... Engines, &c.	87
The Royal Bar-Lock Type Writer	11
To Let	107
Tuck and Co. (Ltd.) ... ... Packing Manufacturers	112
United Asbestos Co. (Ltd.) ... ... Asbestos	103
Unity Safety Fuse Co. ... ... Safety Fuse	—
Vivian's Boring Co. (Ltd.) ... ... Boring Machinery	85
Walker Brothers ... ...Air Compressing Engines	81
Wanted	107
Watson, P. and Co. ... ... Share Dealers	85
Weatherdon, J. H. ... ... "Monarch" Rock Drill	103
Wiggin and Co. (Ltd.) ... ... Nickel Refiners	98
Williams, Captain William ... Consulting Mining Engineer	85
Wood, Charles ... ... Portable Railways, &c.	87

INGERSOLL-SERGEANT

PISTON INLET COLD-AIR COMPRESSORS.

A. E. W. GWYN,
AGENT.



TELEGRAMS:
"ENYAM, LONDON."

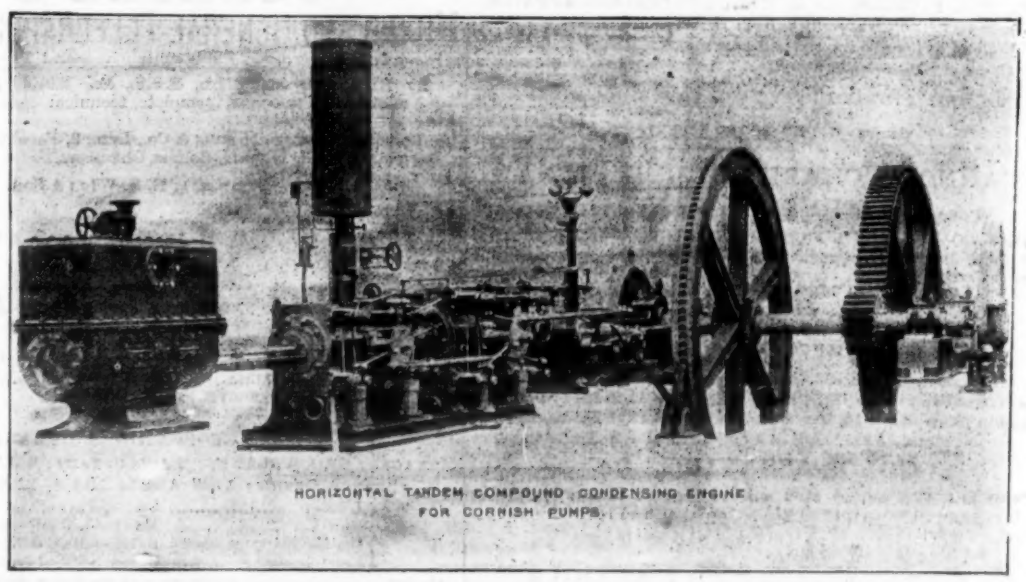
A HIGH DUTY AIR COMPRESSOR, STEAM OR BELT ACTUATED.
DUPLEX CORLISS AIR COMPRESSORS. Write for Catalogue.

THE INGERSOLL-SERGEANT DRILL CO., 114A, QUEEN VICTORIA ST., LONDON, E.C.

MAKERS OF ALL CLASSES OF IMPROVED
MINING, MILLING, SMELTING, CONCENTRATION AND LEACHING MACHINERY.
HIGH-CLASS CORLISS STEAM ENGINES WITH EFFICIENCY GUARANTEED.
BOILERS. PUMPS. ROCK DRILLS. DIAMOND DRILLS.
COMPRESSORS. PERFORATED METAL.
FINE CRUSHING ROLLS.
RIEDLER PUMPS AND COMPRESSORS.
SCHWŒRER SUPERHEATER.
PELTON AND TURBINE WATER WHEELS.

FRASER AND CHALMERS, LIMITED.

HOISTING ENGINES
OF BEST MODERN DESIGN
Direct-Acting or Geared, Flat or Round Rope Drums.
COMPOUND ENGINES
OF SPECIAL DESIGN FOR HIGH DUTY.
Cornish Pumps
FOR ANY DEPTHS, SIMPLE OR COMPOUND.



HORIZONTAL TANDEM COMPOUND CONDENSING ENGINE FOR CORNISH PUMPS.

WORKS:
ERITH, KENT.
CHICAGO, ILL., U.S.A.

OFFICE:
43, Threadneedle Street,
LONDON, E.C.

THE AFRICAN REVIEW.

THE RECOGNISED ORGAN OF THE SOUTH AFRICAN MINING INDUSTRIES.

Published every Saturday. Price 3d. Subscription 15s., Post Free in the U.K., or £1 1s. abroad, payable in advance. Cheques and Postal Orders to be made payable to WILLS, CANNELL, & RIDER HAGGARD (LIMITED), 10, Basinghall Street, E.C. Subscription forms on application.

Mining News from the WITWATERSRAND and RHODESIAN GOLD FIELDS, the DIAMOND FIELDS, SOUTH WEST AFRICA, MOZAMBIQUE, &c. Special Correspondence from JOHANNESBURG, KIMBERLEY, and elsewhere.

RELIABLE STATISTICS. Financial and Commercial Intelligence from Cape Colony, Congo Free State, East Africa, Egypt, Mozambique, Morocco, Natal, Orange Free State, Rhodesia, South West Africa, Transvaal, &c.

THE AFRICAN REVIEW may be obtained at any of Messrs. W. H. SMITH and SONS' Bookstalls, or from our Agents as under:—

London—Blair's, Pottle's, and Everett's, Royal Exchange; Leathwaite and Simmonds, 1, Pope's Head Alley. Liverpool—J. Trenwith Wills, African Chambers. Capetown—Twycross and Co. Kimberley—W. Roper, *Advertiser* Office. Port Elizabeth—W. Harris and Co Durban—Brunskill and Henderson. Pietermaritzburg—P. Davis and Sons. Barberton—A. W. Bayley and Co., *Gold Field News* Office, Johannesburg—The S. A. Publishing Company (Limited), Leakes Chambers, Simmonds Street; The *Diggers' News* P. and P. Co. (Limited), Simmonds Street P Davis and Sons, Pietersburg—Wm. Brown, *Zoutpansberg Review*, Fort Salisbury (Mashonaland) W. E. Fairbridge.

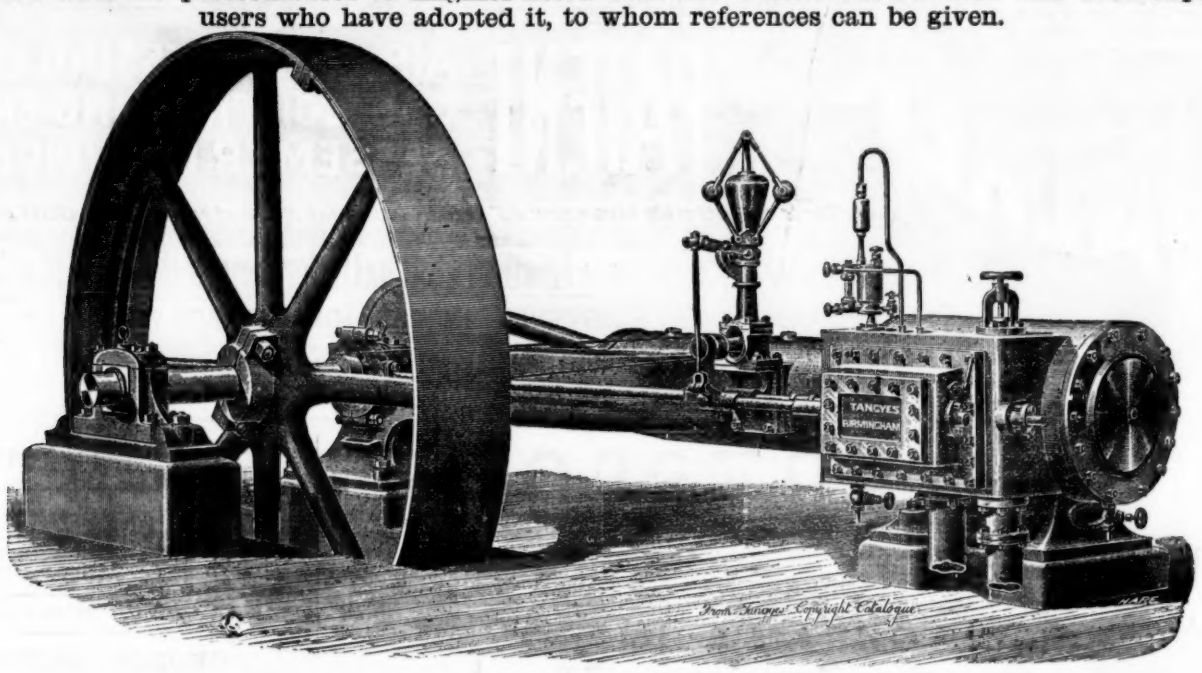
W. F. STANLEY

Mathematical Instrument Manufacturer
To H.M. Government, Council of India, Science and Art Department, Admiralty, &c.
MINING, SURVEYING AND DRAWING INSTRUMENTS
OF EVERY DESCRIPTION, OF THE HIGHEST QUALITY AND FINISH, AT THE MOST MODERATE PRICES.
Price Lists post free.
Address—Great Turnstile, Holborn, London, W.C.

GOLD MEDAL, Inventions Exhibition, 1885
" " Mining " 1890

TANGYE-JOHNSON
PATENT AUTOMATIC CUT-OFF GEAR
FOR STEAM AND COMPRESSED AIR ENGINES.

The utmost satisfaction with the performances of Engines fitted with this Patent Cut-Off Gear has been expressed by the many users who have adopted it, to whom references can be given.



TANGYES' 24 INCH × 48 INCH ENGINE, WITH THE TANGYE-JOHNSON GEAR AND TANGYES' IMPROVED "PORTER" GOVERNOR.

Our "Colonial" and "Belfast" Engines are also made with the Patent Gear.

Quotations on Receipt of Particulars.

TANGYES LIMITED, Birmingham.

ALSO AT

London, Newcastle, Manchester, Glasgow, Sydney, Johannesburg, Bilbao, Rotterdam, and Belfast.

Telegrams—TANGYES, BIRMINGHAM. No. 85c.

THE "LANCASTER"
STEAM PISTONS AND TRAPS
ARE ALWAYS SENT ON APPROVAL.
LANCASTER AND TONGE, PENDLETON.

NORTH QUEENSLAND REGISTER,
THE LEADING NORTH QUEENSLAND WEEKLY,
PUBLISHED AT CHARTERS TOWERS, NORTH QUEENSLAND.
MINING A SPECIALITY.
Subscription £1 4s. per annum; including postage to Great Britain £1 15s. per annum.
Address communications to—
THE NORTHERN MINER PRINTING AND PUBLISHING COMPANY, CHARTERS TOWERS, QUEENSLAND.

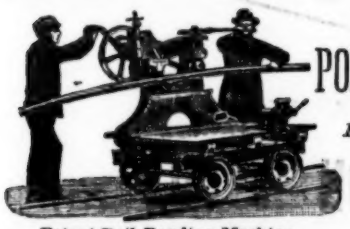
"CHAMPION" ROCK DRILLS

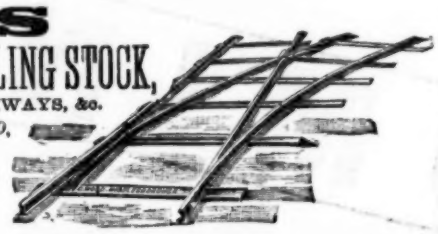
Have all the latest improvements resulting from 19 years' practical experience in constant work.

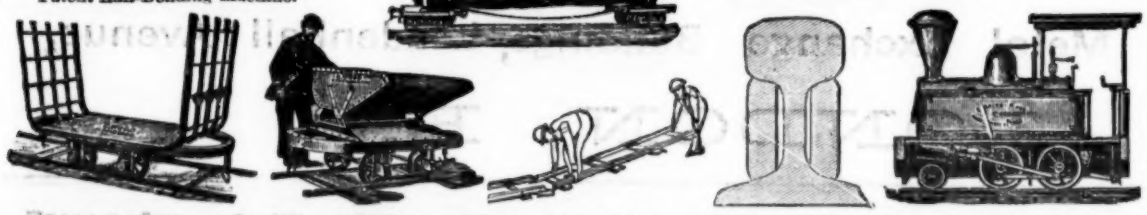
Unrivalled for efficiency and durability in Sinking Shafts, Driving Levels & Tunnels.

WOOD'S
PORTABLE RAILWAYS & ROLLING STOCK,

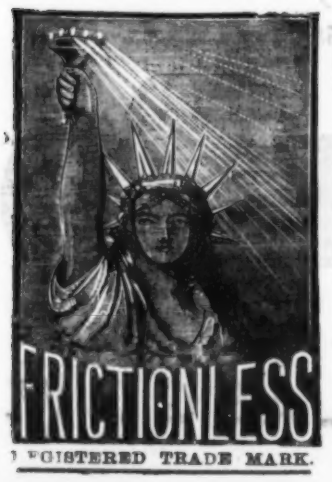
FOR PLANTATIONS, MINES, TRAMWAYS, &c.
EMPLOYED at all PARTS of the WORLD.
Illustrated Catalogue, Price Lists, and Estimates forwarded on Application to


Patent Rail-Bending Machine.





CHARLES WOOD, TEES IRON WORKS, MIDDLESBRO', ENGLAND.



REGISTERED TRADE MARK.

THE
Frictionless Engine Packing Co.
(SMALL and PARKES),
Cable Mills, Glasshouse Street, Oldham Road, MANCHESTER.

MANUFACTURERS OF ALL KINDS OF
Engine and Pump Packings, Indiarubber Goods, Asbestos Goods; Hair and Cotton Beltings.
Sole Makers of Electric-Frictionless Packing, "Railite" Packing, High-Pressure Semi-Metallic Packing
(Small's Patent), &c. &c.

Telegraphic Cable Address: "PACKLESS," Manchester. Highest Awards Wherever Exhibited.
SEND FOR PRICE LISTS AND TESTIMONIALS.

THE CHAMPION ROCK-BORER AND AIR COMPRESSOR CO.

SOLE PROPRIETORS AND MANUFACTURERS,
E. P. and H. P. VACHER,
MAKERS OF ROCK DRILLS, AIR COMPRESSORS,
TURBINES, WATER WHEELS, WATER MOTORS, RAMS,
AND OTHER
MINING MACHINERY.
63, Queen Victoria Street,
LONDON, E.C.

Telegraphic Address: "TURNSCREW, LONDON."

LIVERPOOL JOURNAL OF COMMERCE
Is the best FINANCIAL and COMMERCIAL PAPER in the Provinces.
Is now Enlarged to Eight Pages.
Contains more Commercial and Shipping News than any other Morning Paper.
Proprietor, CHARLES BIRCHALL, 32, Castle Street, Liverpool
LONDON OFFICE.—38, GRACECHURCH STREET.

WALKERS'
"PATENT"
INDESTRUCTIBLE
VENTILATING FANS
FOR MINES, TUNNELS, &c.
CONSTRUCTORS OF THE VENTILATING MACHINERY AT THE SEVERN AND MERSEY TUNNELS.

PATENT ANTI-VIBRATION SHUTTER
Applicable to all enclosed Fans

WALKER BROTHERS
Engineers,
Pagefield Ironworks,
WIGAN.

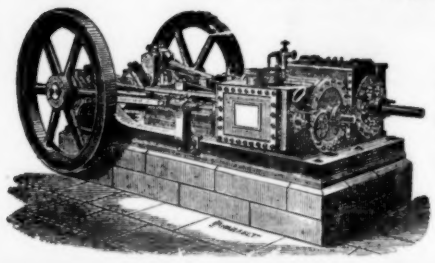
PATENT AIR COMPRESSING ENGINES
GAS COMPRESSING ENGINES
BESSEMER BLOWING ENGINES

upwards of 400 of the above now AT WORK indicating in the aggregate 150,000 Horse-Power

Fisher & Walkers' Patent Friction Clutch & Underground Haulage Machinery
THIS GEARING IS NOW EXTENSIVELY IN USE FOR HAULAGE PURPOSES.
The objects attained are SIMPLICITY, ENDURANCE OF THE MACHINERY AND ROPES with a MINIMUM EXPENDITURE OF POWER.

AIR COMPRESSORS

With Compound Air and Steam Cylinders,
Fitted with SCHRAM'S Inlet and Outlet Valves giving the greatest efficiency.



SCHRAM'S IMPROVED
Rock Boring Machines.
Supplied to the Indian, Colonial, and other Governments.
2500 IN USE in all PARTS of the WORLD.
DIAMOND PROSPECTING DRILLS.
"OPTIMUS" COMPOUND ROCK DRILL.
(P. J. OGLE'S PATENT.)
Consumes 40 per cent. less Compressed Air than any other Drill at the same time giving the most effectual results.
ESTIMATES AND FULL PARTICULARS ON APPLICATION.
RICHARD SCHRAM & CO., 17a, Great George Street, Westminster, S.W.
TELEGRAMS: "SCHRAM, LONDON," A1, A.B.C. and The Engineering Telegraph Codes Used.

Telegrams—Green, Foundry, Aberystwyth.

SILVER MEDALS AWARDED AT THE ROYAL CORNWALL POLYTECHNIC, 1872 & 1876; GOLD MEDAL AWARDED AT THE GREAT INTERNATIONAL MINING EXHIBITION, CRYSTAL PALACE, 1890.

ONLY AWARDS GIVEN FOR CONCENTRATION PLANTS

GEORGE GREEN'S PATENT
Self-Acting or Automatic Ore Dressing Machinery,
A Special Plant, on a reduced scale, has been erected at the Works by which samples of METALLIC ORES—up to Five Tons may be treated, and the commercial value determined, in this way the most suitable arrangement of Plant is ascertained, a considerable advantage to intending Purchasers of Crushing and Concentrating Plant.

GOLD STAMP AND OTHER MILLS.

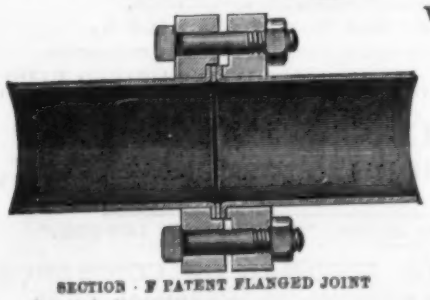
GEORGE GREEN,
THE FOUNDRY, ABERYSTWYTH.

For PURE ALUMINIUM
98 to 99½ per cent. (98 per cent. minimum guaranteed) in
INGOTS, STICKS, & ROLLING SLABS;
ALSO FOR
SHEETS, &c., AND
FERRO-ALUMINIUM.

ALUMINIUM.

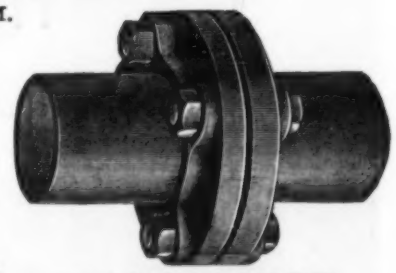
APPLY TO
HENRY R. MERTON & CO.,
2, Metal Exchange Buildings, Leadenhall Avenue,
LONDON, E.C.

A. & J. STEWART and CLYDESDALE, Limited.
Glasgow, Coatbridge, and Mossend.



SECTION OF PATENT FLANGED JOINT

WROUGHT IRON WELDED TUBES and FITTINGS for GAS, WATER, and STEAM.
Light Lap-welded Wrought-iron and Steel Tubes
(SPECIALLY ADAPTED FOR MINES).
With Patent Flanged Joints (as illustrated) for the Conveyance of Water, Steam, and Air, at High and Low Pressures.
LAP-WELDED IRON AND STEEL BOILER TUBES
FOR LOCOMOTIVE, MARINE, AND OTHER MULTITUBULAR BOILERS.
STEEL & IRON PLATES FOR BOILERS, BRIDGES, &c.



PLAN OF PATENT FLANGED JOINT.

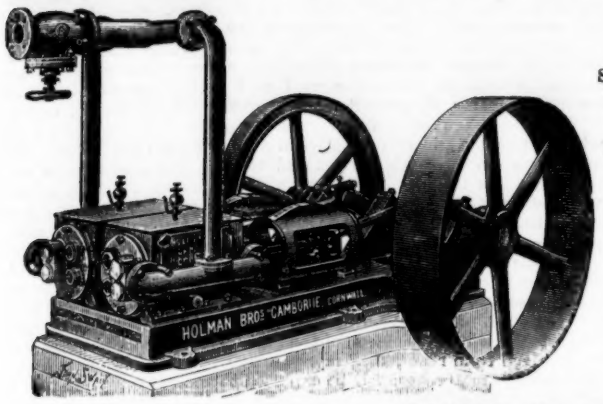
Head Offices: 41, OSWALD STREET, GLASGOW.

HOLMAN Bros., Camborne, Cornwall.

ESTABLISHED 1839

Patentees and Sole Makers of

"THE CORNISH" ROCK DRILL and "THE CORNISH" COMPRESSOR



FIRST SILVER MEDAL, Highest Award, Mining Institute Contest, 1881.

Three Makers represented.

FIRST SILVER MEDAL Highest Award, Royal Cornwall Polytechnic Jubilee Exhibition Contest, 1882.

Five Makers represented.

AWARDED SILVER MEDAL INTERNATIONAL INVENTIONS EXHIBITION, 1885.

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS**, equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES**, and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

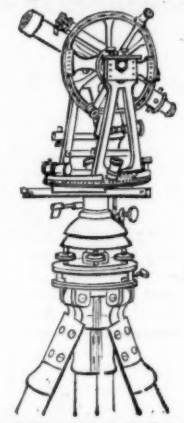
Estimates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

London Offices: 7 and 9, LEADENHALL BUILDINGS, E.C.

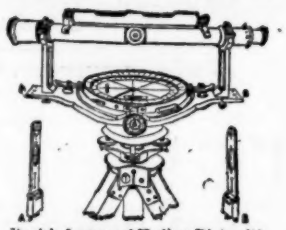
JOHN DAVIS AND SON,

ALL SAINTS WORKS, DERBY;

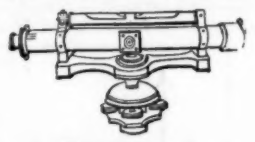
118, NEWGATE STREET, LONDON.



Transit Theodolite with Patent Hoffman Tripod Head, and Trough Compass.



Davis's Improved Hedley Dial, with Telescope and Sights Interchangeable and Patent Hoffman Tripod Head.



Dumpy Level with Hoffman Patent Tripod Head.

MINING, SURVEYING AND ENGINEERING INSTRUMENTS

THEODOLITES. LEVELS.

Davis's Improved Hedley Miners' Dials with HOFFMAN PATENT TRIPOD HEAD.

AND ALL DESCRIPTIONS OF MATHEMATICAL AND MINING SURVEYING INSTRUMENTS.

Revised Illustrated Catalogues Free to any Part of the World.

SECTION (A) MATHEMATICAL DEPARTMENT AND SAFETY LAMPS

SECTION (B) ELECTRICAL DEPARTMENT.

Gold Medal Awarded Mining Exhibition, 1890.

"THE ENGINEERING TELEGRAPH CODE USED."

HENDERSON'S RAPID TRAVERSER.

AWARDS: CRYSTAL PALACE, 1890; TASMANIA, 1891; KIMBERLEY, 1892.

CONCENTRATION.

The Clarkson-Stanfield Concentrator (Limited).

In the CLARKSON-STANFIELD process of Concentrating Refractory and Complex Ores no water is required; dust is reduced to a minimum; the loss of Mineral through water-borne Slimes is obviated.

OUTPUT ½ TO 2 TONS PER HOUR, ACCORDING TO SIZE OF MACHINE.

CONCENTRATOR TO BE SEEN IN OPERATION AT THE COMPANY'S ONLY ADDRESS:

6, COLONIAL AVENUE, MINORIES, LONDON, E.

The Machine is superior to Sieves for Sizing Homogeneous Substances, such as Emery, Sand, and Powders, and may be used to great advantage in the preparation of Ochre.

N.B.—The owners of the Carndochan Mine, near Bala, North Wales, will, by arrangement, show their CLARKSON-STANFIELD plant working on a Refractory Low Grade Gold Ore.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Wheels, January 29 (*London, E.C.*).—For the supply of (a) 570 pairs wheels, with steel axles; (b) 1197 axle boxes, 840 volute springs, 1140 laminated springs, 500 brass boiler tubes, for the Bengal and North-Western Railway (Limited). Forms of tender and conditions of contract may be obtained on application at the company's offices.

Reservoir, January 31 (*Paignton, Devon*).—For the construction of a storage reservoir, two filters, and other works connected therewith, for the Paignton Local Board. Plans and specifications may be seen, and forms of tender, and bills of quantities obtained at the Town Hall, Paignton, or at the office of the engineers, Messrs. John Newton and Son, 17, Cooper Street, Manchester.

Permanent Way Materials, January 31 (*Barry Dock, near Cardiff*).—For the supply of the following permanent-way materials, for the Vale of Glamorgan Railway Company: Steel rails and fish plates, bolts and nuts, chairs, sleepers, oak keys. Drawings and specifications have been prepared by the company's engineers, Messrs. T. Forster Browne and Rees, and Sir James W. Szlumper.

Fencing, January 31 (*Croydon*).—For about a mile length of 8 feet unclimbable iron fencing for erection in the Mitcham Road, Croydon, for the Corporation, in accordance with plans and specification, which may be seen at the office of the Borough engineer, 3, Katherine Street, Croydon.

Tram Rails, February 4 (*Manchester*).—For the supply and delivery of about 200 tons of Bessemer steel tram rails, with the necessary fish plates, for the Manchester Corporation. Drawing and specification may be seen at the City Surveyor's office, Town Hall.

Wagon Stock, February 4 (*Gorton*).—For the supply of the following new wagon stock, for the Cheshire Lines Committee:—300 medium, 100 high-sided, 50 covered goods vans, 50 cattle-trucks. Plans may be seen and specifications and forms of tender obtained on application to Mr. Thomas Parker, jun., carriage and wagon superintendent, M. S. and L. Works, Gorton.

Fencing (*Swindon*).—For 200 yards (more or less) corrugated iron fencing, with doors, for the St. Paul's Church Purposes Committee, New Swindon. Specification from Mr. A. White, 2, D acon Street, New Swindon.

CALIFORNIAN STATE MINING BUREAU.—We have to acknowledge receipt of the 12th report of the State Mineralogist, edited by Mr. J. J. Crawford. As usual it is crowded with useful and interesting information. We are at liberty to state that those interested in the subject may obtain a copy free on application to the State Mining Bureau, No. 24, Fourth-street, San Francisco. Those living outside the State of California should remit the postage with the request for a copy.

— The directors of the DAY DAWN P.C. GOLD MINING COMPANY (LIMITED) have sold, through Messrs. Johnson, Matthey and Co., the gold ex s.s. *Mombasa*, which realised £3635 2s. 6d.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

42 Max Binswanger, 73, St. Stephen's Road, Upton Park, London.—Improvements in and connected with telephonic apparatus as adapted to mining and other purposes.—January 1.

73 Ewald Fischer, Emil Klein, and Franz Mahlstedt, 22, Coleman Street, London.—Improved method and apparatus for the extraction of precious metals from their ores.—January 1.

89 Percy Hulburd, 4, South Street, Finsbury, London.—Improvements in packing for hydraulic, steam, and other machinery.—January 1.

104 John Arthur Yeadon and William Adgie, 4, Albion Place, Leeds.—Improvements in revolving retorts or furnaces.—January 2.

130 Frank Varty, Thomas Varty, and Harry Symons Robinson, 37, Cursitor Street, Chancery Lane, London.—Improvements in furnaces.—January 2.

140 Carlo Guttari, 45, Southampton Buildings, Chancery Lane, London.—Improvements in or relating to carbonic acid, and like motors.—January 2.

187 Andrew Taylor and William Somerville Taylor, 62, St. Vincent Street, Glasgow.—Improvements in pumps.—January 3.

208 Henry Edwards Bedford, 9, Warwick Court, Gray's Inn, London.—Improved means for preventing explosions in mines.—January 3.

261 Francis Hodge, 13, Fulham Place, Paddington, London.—An improved electric stamper battery for ore crushing.—January 4.

331 James Cadoux Hudson, 7a, Upper Ground Street, Blackfriars Road, London.—Improvements in valve gear for steam and other fluid pressure engines, steam pumping engines, and the like.—January 5.

347 Herbert Alfred Humphrey, 28, Southampton Buildings, Chancery Lane, London.—Improvements in gas and oil motor engines.—January 5.

SPECIFICATIONS PUBLISHED.

22707, Hulse, milling metals, 1893; 24427, Coombs, obtaining motive power, 1893; 719, Baugh, boiler furnaces, 1893; 2556, Fairweather, preventing formation of scale in steam boilers, 1894; 3053, Hamilton, steam generators, 1894; 5493, Southall, gas, &c, engines, 1894; 9097, Brown, ore roasting furnaces, 1894.

The above specifications published may be had of Messrs. Rayner and Co., 37 Chancery Lane, London, at 10d. each including postage.

THE STOCK EXCHANGE YEAR BOOK.—We have received a copy of Mr. Thomas Skinner's "Stock Exchange Year Book for 1895." We have spoken so frequently of the value of this publication, that it is really impossible to say anything new. Every City man, no doubt, buys a copy of it yearly, for he would really be at a great loss without it, and thus to him its merits are well known.

GOLD IN THE PHILIPPINES.—At the invitation of the Philippines Mineral Syndicate, we inspected, this week, some specimens of ore and tailings which have just arrived from Tumbago. The specimens are very rich; the tailings, in fact, have been pronounced by an eminent assayer to be the richest ever brought to England. It is estimated that they contain in some samples 30 and even 50 per cent. of gold. We await with great interest the result of the assays, which will no doubt confirm these estimates, and add another link to the chain showing the brilliant future which, in the opinion of many, awaits this company and the mining industry of these isles.

ANSWERS TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

W. W. L.—We do not recommend them.

G. H. G.—Take a profit in each case.

R. W.—We advise you to buy now.

YORK.—Wait for a relapse. The others are a fair speculation.

GEORGE.—We understand that no definite arrangement has been come to.

J. H. S.—Hold them both for better prices.

G. W.—You are liable for the call, whether you sell or not.

A. D. M.—Buy 2 and 4, but sell 1 and 3.

OLIVE BRANCH.—Take your profit.

ONEGA.—1. Worth buying.—2. Have had a substantial rise, which may not be followed any further.—3. No.—4, 3s. 9d. to 4s. 3d., rather nominal. Not worth buying.—5. Sell these on the rise.

CRONY.—1 and 2. Yes.—3, 4, and 5. No.—6, Yes, for a lock-up.—7. Yes.

"ON THE LIAS IRONSTONE AROUND BANBURY."—Mr. E. A. Walford, F.G.S., read a communication on the above-named subject, before the Geological Society of London, on the 9th inst., and exhibited specimens of the ironstone, in illustration of his paper, of which the following is an abstract:—The ferruginous limestone of the Middle Lias of the Banbury district occurs practically within a 10-mile circle around Banbury. The stone (the marlstone of the Geological Survey) is an "oolitic" cyprid-limestone with much mollescan and crinoidal debris, and some quartz-grains. The author describes the lithological characters of the rock, and their variations, as traced laterally and vertically, giving a full description of its local development, with a detailed account of the sections in the principal exposures. The marlstone of this area is dissimilar from that of Gloucestershire both in appearance and in fossil contents, the Gloucestershire stone being of earlier deposition and representing better the base of the Banbury series, rather than the stratum which is richest in iron. From the blue clays of the Margaritatus-zone up to the rock-bed itself there is a slow change of conditions, and the fauna points to slow tranquil sub-littoral conditions. The author reserves his views as to how the rock-bed obtained its ferruginous elements. He gives a description of the palæontology and economic uses of the deposits, and appends analyses of various ironstones from the district, made by the aid of Sir B. Samuelson.

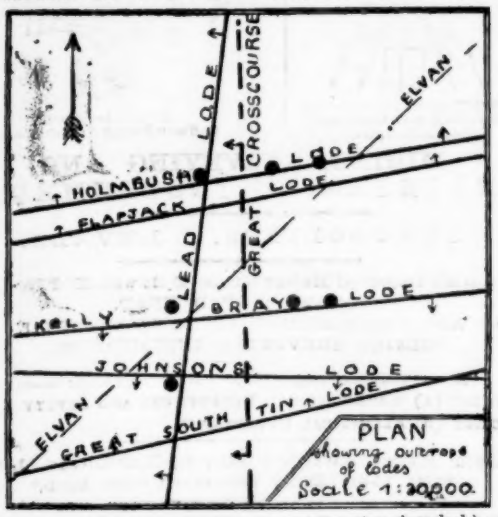
HISTORY OF THE HOLMBUSH, REDMOOR, AND KELLY BRAY MINES.

SITUATED NEAR CALLINGTON, EAST CORNWALL.

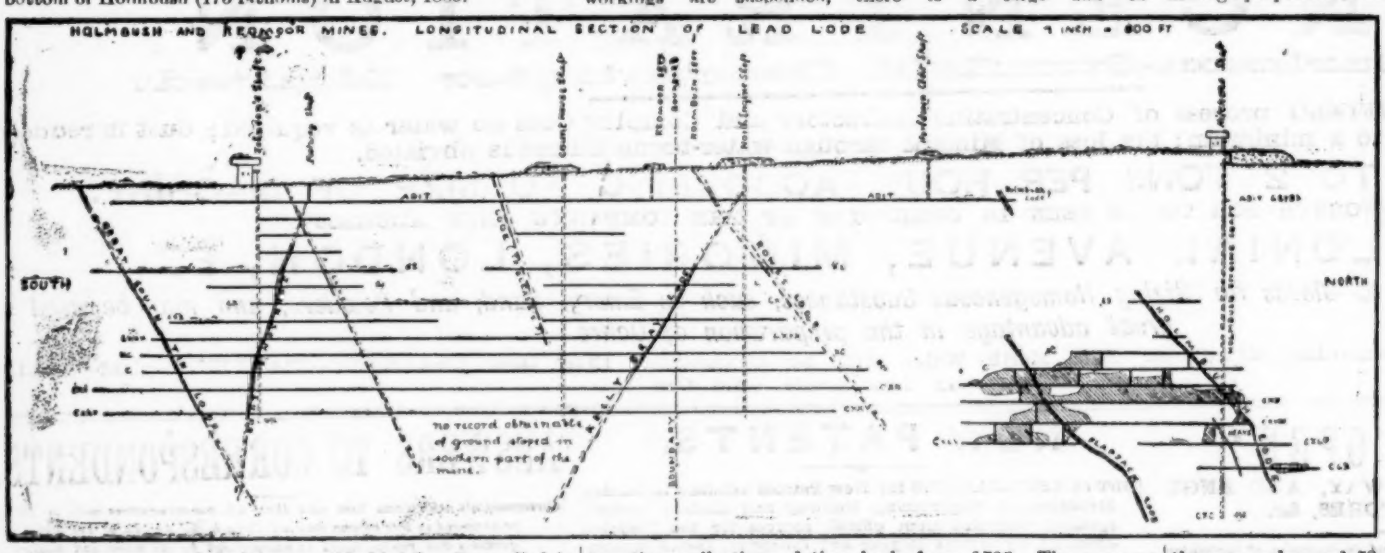
By W. F. WILKINSON, F.G.S., Assoc.M.Inst.C.E.

(Concluded from page 62).

IN 1888 the mines were acquired by the Callington United Mines Company (Limited), and, for the first time in their existence, the three mines were worked as a united concern. The capital of the company was £100,000, and the purchase price £30,000. Unfortunately, the company went to allotment before the shares first offered had been fully taken up, and, consequently, the old story of starting to work these extensive mines without sufficient working capital, was once more repeated, and the same fate awaited the company that had ruined previous



companies. The first report presented to the shareholders records how, as regards yield and value of ores met with, the directors had not been disappointed, but that difficulties had been met with in draining the mine, owing to the pumping machinery constantly breaking down. The unwatering of the mine commenced on August 31, 1888, and the bottom of Redmoor (125 fathoms) had been drained by the end of April, 1889, and the bottom of Holmbush (175 fathoms) in August, 1889.


HOLMBUSH AND REDMOOR MINES. LONGITUDINAL SECTION OF LEAD LODE SCALE 1 INCH = 800 FT
ADIT
SOUTH
NORTH
no record obtainable of ground stoped in southern part of the mine.

The average rate of draining—or "forking," as it is called in Cornwall—the mines was, for the first 85 fathoms from adit, 5·1 feet a day, using two 80-inch cylinder Cornish condensing beam engines, with 15½ inch plunger poles. As regards the amount of incoming water, it may be mentioned that in January, 1892, 504 gallons per minute had to be raised to keep the mine dry to the bottom level, and in July, 1893, when the mine was only drained to 76 fathoms below adit, the incoming water was 285 gallons a minute, and in November, 1893, when it was at 60 fathoms below adit, the incoming water was 200 gallons a minute.

The working capital of the company, amounting to only £17,000, appears at this time to have been all absorbed in unwatering the mines and in putting them, or a part of them, into working order, and the directors had to raise money on debentures.

While the mine was being unwatered the ore raised amounted to £5807. Besides the expense of unwatering the mine, considerable capital expenditure was laid out in land and buildings at the mines, and at the arsenic works at Greenhill. In the report to the shareholders for the year 1890 the directors again referred to the fact that the subscribed capital was inadequate to do full justice to so extensive a concern. The ore sold for the year amounted to £22,595. In the following year, 1891, the sales of ore amounted to £14 949. This was attributed to the unsatisfactory position of the company owing to the various accidents that had taken place in the mine. The pumping plant at Redmoor broke down, some of the pumping gear being precipitated to the bottom of the shaft. The lower workings became flooded, and the drainage and repairs occupied four months. It is not, therefore, to be wondered at that, under these circumstances, favourable working results could not be shown.

The development of the mine being satisfactory, and the prospects at Redmoor being especially encouraging, the directors, rather late, no doubt, decided to call in expert advice, and had the advantage of a report on the condition and prospects of the mine by Mr. J. H. Collins, F.G.S., who advised a continuation of operations. Unfortunately, the fresh capital required was not forthcoming; and the company had to go into liquidation in August, 1892.

Since then the property has been bought by a syndicate, consisting mostly of shareholders in the late company, who have had further investigations and experiments made at the mines under the direction of the author, with a view to seeing what improvements in the methods of working might be introduced when the mine is again worked. It is to be hoped, for the credit of metalliferous mining in this country, that the experiences of previous companies, as recorded in these pages, will prevent any company in the future undertaking the working of these extensive mines with insufficient capital. To be given a fair chance it should be equipped with pumping machinery that is not always breaking down, and with a modern ore dressing plant capable of handling a large daily output at a minimum of cost and a maximum of extraction, such as to-day are to be seen working successfully at foreign metal mines, as, for example, Mechernich, Freiberg, the Atlantic Mine, Bonne Terre, Missouri Laurium, and a host of other mines. In the metallurgical treatment of the ores no doubt improvements might be made, especially in connection with the utilisation of present waste products, and the suggestions offered by Mr. William Thomas, in his admirable article on "Arsenic," in the "Mineral Industry," Vol. II., p. 29, should not be forgotten.

In the report on the mines in Cornwall for 1893, Mr. Joseph Martin, H.M. Inspector of Mines, makes the following remarks, which may be appropriately quoted in connection with what has just been said about Holmbush Mine:—

"The system of working mines in Cornwall practically without capital, prevents their proper and expeditious development, and renders them highly sensitive to trade variations and depressions, with the result that they can only be looked upon as speculations, and not investments. Having in previous reports expressed my views as to the prejudicial effect which follows such conditions, I do not intend repeating myself now. In order that Cornish mining shall regain the confidence of the public, which might reasonably be expected from the opportunities which present themselves in the county, it seems to me that considerable changes will have to be effected in the financial conditions and customs, as well as in the system of conducting and managing the mines. I see no reason why some of the money which flows into foreign countries for the development of mines should not be kept at home with a reasonable prospect of good investment, if the work were gone about with combined energy and efficient practical and scientific skill; but neither the practical man nor the scientist alone will suit the present day."

Before concluding this paper, a few words may be said about accidents and mine plans.

Fatal Accidents.

The working of these extensive mines has not been free from fatal accidents. Since 1876, no less than 14 men have lost their lives in or about the mines. Of these seven were accidents in the shafts, four by unexpected falls of ground, two surface accidents, and one by explosion of dynamite while working with a boring machine. One of the fatal accidents on surface was a very curious one. A man employed at the Redmoor Arsenic Works was cutting away the lintel of a deserted house to obtain firewood to light a kiln, when the masonry gave way and crushed him.

Mine Plans.

Owing to the age of the mines, and the numerous stoppages that have occurred, a great many different plans of the underground workings have been prepared. At the Home Office, where copies of the plans have to be deposited when the workings are suspended, there is a large and interesting collection, dating back from 1796. There are no less than 23 plans and sections relating to the workings deposited here. They are on all sorts of scales, and even the recent plans of the three mines are on different scales. As so many sad accidents have occurred in mines owing to faulty plans, it may be well to point out that there appears to be some uncertainty as to whether the 90 fathom level driven east from the Lead lode on the Kelly Bray lode, has reached the great crosscourse; and the author would warn any engineer who in the future may have charge of these workings, of the danger of driving west at Kelly Bray Mine below the 70, supposing Redmoor Mine to be full of water to that level. In the eastern part of Kelly Bray Mine there are also separate old workings, which should be given a wide berth. Several of the plans were recently kept at the Jermyn-street Museum, but they are now all deposited at the Home Office.

As some confusion may arise in comparing the old plans with the modern, it should be mentioned that at Kelly Bray Mine the depth of the levels was in the old days measured from the surface, but in the more recent plans from the adit, which is about 25 fathoms below surface. Hence the old 95 is now called the 70 fathom level.

In the sections accompanying these articles, the scales of the Holmbush, Flapjack, Kelly Bray, and Johnson's lodes should be one inch equals 600 feet, and not 300 feet.

Whether these mines will be worked again this year or a century hence, is matter of uncertainty. In either case, it is to be hoped that this record of their previous workings will be of service, by showing to what extent, and with what results the ore has been extracted, and in what direction future operations would have the most chance of success. It is just 50 years ago since the importance of preserving mining records was brought before the House of Commons, which resulted in a law being passed compelling mineowners to keep correct plans, and to deposit them in the custody of the State, when the mine workings were suspended. It was recognised that there might be a great waste of the valuable mineral resources of the nation, unless steps were taken to record and register the experience gained and the discoveries made by the mining population. It is to be regretted that the present regulations only require the preservation of the bare plans of mines, abandoned or suspended, and do not, in addition, demand some written description of the nature and value of the mineral veins for the assistance of posterity.

[*Concluded.*]

"KNIGHT'S" WITWATERSRAND MINE.

Report by Mr. ALFRED LEWIS, M.E.

THE life of the above mine ranks amongst the first of any of the outcrop claims on the Rand, with 250 claims on the east, west, and central sections, besides 175 claims on the dip. As an estate company the returns will show in the near future dividends equal to at least 16 per cent. It must be borne in mind that the following companies:—May Consolidated, Glencairn, Knight's Tribute (Barnato Bros.), Balmoral, Gardner Main Reef, East Rand Syndicate, Ginsberg, East Rand Proprietary, and all the dip claims of the above mines are contributors to the income of Knight's in rent for claims held, all situate on the estate; therefore, the actual value of this estate as an investment cannot be computed at less than the total value of the property at present market prices—viz., £875,000, taking into consideration their own vast property in mining claims, all of a payable and remunerative nature. To the south there are several series of reefs as yet undeveloped, but good returns are sure to be the result of systematical opening up; this means again, putting a further value on the property. The only water in this coming mining district belongs to the estate, and must necessarily be of immense value. A township of considerable importance will be sure to follow the successful opening up of all these mines, and this means a big revenue added to all the other things. It is, therefore, difficult to form an idea as to the true value of the estate, as a dividend-paying concern, on a land estate basis, independent of the mine. At present, the revenue, derived from rents, &c., is equal to over £15,000 per annum, and this may reasonably be expected to increase two-fold before many years.

The present return shows that payable ore exists throughout the mine, and the only thing needed is systematical and well-managed development, and this is being done under the able supervision of Mr. N. T. Williams, general manager, who will shortly astonish the mining community by his success in bringing this prominently forward as one of the best paying concerns on the Rand. On Knight's Tribute the mill has lately shown results equal to 9 dwts., and the tailings gave approximately 8 dwts.; but the returns cannot be expected to continue, otherwise the premier mines on the field would have to take secondary places. The assays and pannings show a return of 11 dwts. to the ton, and this is considered a fair average all through.

All facts and data gathered so far are through results of boring, &c. The opinions of experts are unanimous on one point—viz., that there are not, so far, two separate reefs existing on the property, but that the reefs overlap, and the reef as at present shown, that the north reefs are one and the same. This may prove eventually not to be the case, but the opening up of the mine now being pushed ahead will shortly clear this matter up. However, assuming that there be only one reef, the value of the property is not affected one iota, as the ore bodies are more than the average size, and the amount of the ore in each claim is far in excess of the average mine. As a large mining proposition, this mine must necessarily rank as one of the greatest in Africa, everything being in its favour—viz., large reefs unbroken for considerable stretches, and an abundance of water. The 60 stamps should start crushing in about five months' time. The company may then have a liability of some £50,000, but with the returns from the estate, and the gold, this will soon be liquidated. The reef is now being prospected on the eastern section, and at this point it dips at an angle of about 60°, pannings giving highly payable results of 14 dwts., and this shows an immense length of payable ore, as from this point the western boundary is a distance of 7500 feet. About 80,000 tons of ore are opened up.

When the mill is ready to start, the development would show at least 120,000 tons of ore in sight. The ground is of a payable nature, and far exceeds that held by the Glencairn, Knight's Tribute, May Consolidated, and Balmoral Companies. And these have a market value of over 1¼ million sterling, whilst Knight's, with ore of the same value, and 50 per cent. more claims outside its estate value, shows only a market value of £875,000. The market value of the average Deep Level claims on the Rand is far above the price obtainable for the outcrop claims (as in the case of Knight's), which is absurd. The cost of opening up an outcrop mine is only relatively nominal as compared to opening up a Deep Level one.

The mine has 425 claims on the outcrop and Deep Levels, and taking a fair moderate estimate of 30,000 tons to each claim, this will give over 12,000,000 tons of ore, and, allowing for faults, dykes, &c., will give over 10,000,000 tons of payable ore. With 100 stamps, milling about 150,000 tons a year, the life of a mine can be computed at not less than 66 years, which is (excepting the Simmer and Jack) the greatest-lived mine in South Africa. Having shown such great improvement at depth a profit of at least 15s. per ton may be looked for in the future, and, on this basis, profits of at least £7,500,000 sterling will be distributed in dividends before the mine is exhausted, or equal to £30 a share, on shares that now stand in the market at under £3 10s. per share. With 100 stamps the company will pay 45 per cent. a year, and on a 10 per cent. basis the shares should be cheap at £4 5s., but, taking into consideration the enormous tonnage in the mine, and the possibilities of its being in time a 200 stamp proposition, I will leave it to your readers to form their own opinions as to the cheapness of these shares as an investment. The revenue for the estate, independent of mining, is sure to increase fully 100 per cent. during the next few years, and from this dividends equal to 8 per cent. will be declared, which should ensure a further substantial advance in the price of the shares. During the past few weeks all the Deeps have been pegged out, and also the Southern series—which also run through the estate—have also been pegged, and it is only a matter of time when there will not be an inch of ground left unpegged.

The Kimberley reefs are found payable at this point, and as they consist of large bodies of ore, extensive crushing plants will be erected, and, when this is done, water will be required from the estate, which will mean a further source of income. On comparison with the Glencairn, it will be seen how low the ore per ton is valued. The Glencairn has about 1,500,000 tons of ore left in the mine, and the capital being £225,000, and the shares at about £4, makes the value of this 1,500,000 tons £900,000; whilst the 10,000,000 tons of ore of about the same grade in Knight's has only a value of £875,000, and, as the Glencairn is still considered a cheap share, then Knight's, with a market value of about £2500 a claim, must be still cheaper at double the present market value.

DEFECTIVE ORIGINAL

GOLD MINING AND MILLING IN THE BLACK HILLS (S. DAKOTA).

By C. G. WARNFORD LOCK.

(*Continued from page 63.*)

Milling.

THE milling and metallurgical part of my subject may be conveniently dealt with under the following heads:—

1.—Cement mills.
2.—Stamp mills for free-milling veinstone.
3.—Smelting of carbonate and sulphide ores.
4.—Treatment of the Potsdam refractory mineral by amalgamation, chlorine, bromine, and cyanide.

1. Cement mills.—The very free condition of the gold contained in the cemented gravels, and the consequent ease with which it can be isolated and recovered, permit the use of very simple contrivances. In this case stamps are rarely used, if at all. The most popular machine is one which I have neither seen nor read of elsewhere, and may possibly be a local production—it is known as the Wiswell pan. Essentially, it consists of a pan with an annular groove in the bed, of conical section, in which revolve four heavy (2000 lbs. each) iron wheels, with faces shaped to correspond with the groove in which they travel. The ore, roughly hand-broken, is fed by a hopper through a slot in the sheet-iron casing which surrounds the pan, and finds its way into the annular groove of the bed, where it is pulverised by the grinding action of the wheels or runners, water being admitted in the usual manner. A small amount of mercury is fed into the pan at intervals, and gathers at the bottom of the groove, whence it can be drawn off as thin amalgam by a tap. About one-third of the peripheral sheet-iron casing is replaced by slotted iron screens, through which the pulp is discharged. The iron bed is made in three sections, which bolt together securely; and the groove is furnished with a false bottom in pieces of convenient size for handling. Copper plate tables are provided below the screen discharge, and catch some additional gold, but the major portion is arrested by the mercury. A small projection on the framework which actuates the runners serves to regulate the feed by agitating the hopper. The machine is altogether remarkably well adapted for the somewhat limited sphere of application open to it. It is very simple and inexpensive; has nothing to get out of repair; requires but little power and attention; and exercises a certain amount of grinding as well as a crushing effect, which is in some instances very beneficial. The wear and tear or consumption of iron is very small as compared with stamps; and the shape of the runners reduces the tendency of the pulp to flow in front of them, as is more or less the case with Chilian mills. But it cannot be employed on an ore which is in any case pyritiferous, as the heavier mineral will not issue at the periphery, but accumulates in the groove of the bed.

2. Stamp mills for free milling veinstone.—Considered from the point of view of local production, the stamp mills occupy by far the most prominent and important place in the gold mining industry of the Black Hills, but in other respects they merit only brief attention. Built between 1876 and 1880, they cannot be regarded as very modern, and the most striking feature about them is their unusual size. Of the seven mills in active operation, three drop 80 stamps, two 100, and two 120 each, or 680 stamps in all, their collective output being about 2500 tons per 24 hours. They are all controlled by the Homestake Company, a typical American corporation, with its "inner rings" and other hidden features, but sufficiently prosperous. All the mills are driven by steam power. Fuel for the boilers is chiefly cordwood, cut on the surrounding hills, and costing about 14s. a cord; some local (Cretaceous) coal is also used. The supply of battery water is so limited that during several months in the year it is necessary to settle the mill tailings and pump the clear water back into a supply tank. This has entailed the construction of two large dams and the erection of powerful pumping plant, and calls for considerable expenditure on labour to periodically empty the tailings cribs. The ore is delivered at the mills in automatic dumping cars, which discharge on to grizzlies above the crusher floors, and passes down through the mills always by gravity, but hillside sites are avoided. The two rows of stamps are back to back in some mills and face to face in others. The distribution of driving power follows three types:—By continuing the engine shaft so as to form one line shaft, resting on the battery sills; by transferring from a small mainshaft on the cam floor to two line shafts on the same level; by transferring from a small main shaft between cam floor and battery floor to two line shafts on the battery sills. The average relation of engine horse-power to stamp head is about 1·7 to 1. Self-feeders are used of both the Hendy and the Tulloch type. The stamps weigh 850 lbs., drop 9 inches, and make 85 drops a minute. Ordinary chilled white shoes and dies are used in preference to other kinds after competitive trial; the wear and tear of iron is ·4—·46 lb. dies, and ·35—·37 lb. shoes per ton (2000 lbs.) of ore milled. Diagonal-slot Russia iron screens, No. 7 needle (= 30 mesh), and weighing ·987 lbs. per square foot, have hitherto been employed, but are now giving place to No. 8 needle. Aluminium copper bronze (5 per cent. aluminium) was tried, and lasted six months as against two weeks, but has not been adopted. Experiments with a Ball steam stamp were unsatisfactory. Mercury is fed to the battery, and inside plates recover 55—60 per cent. of the gold saved. Outside the battery are plates measuring 6 feet square for each five stamps, supplemented by a series of mercury traps.

The predominant features in the conduct of operations in these mills are haste and waste. The all-pervading idea is to rush through as many tons as can possibly be crowded, and trust for profits to catching that portion of the gold which is most readily caught. To begin with, the actual value of the ore is not even known, for it is neither weighed or assayed. A rough determination of the free gold only is made by a professional sampler, who pans some 50—55 samples a day; but of the gold which is not free no account is taken. Until very recently the tailings flowed from the plates directly into the creeks, and thousands of tons of the heavier and richer portions of these tailings choke the gulches for miles below the mills—that which has cost so much to mine and mill being thus scattered irrecoverably for the most part as the veriest rubbish. What a lesson these "smart Western men, as they loved to be called, have to learn from the thrifty Australasian and South African. What a fortune might now be reaped if these tailings had only been ever so crudely concentrated and cribbed for subsequent treatment. Various estimates have been made of the proportion of sulphurets in the ore. Professor Hofman says it "varies from 2½ and 3 per cent. to 6 and even 10 per cent." The assistant-manager assured me that it closely approached the last-named figure. The assay value of pure concentrates ranges from 4 to 90 dwts., and averages, according to Hofman, about 25 dwts. per ton. Some parcels I had for experimental treatment contained 8½ dwts., and readily yielded 6½ dwts., of that (or about 70 per cent.) to amalgamation conducted on the lines which I described in a previous communication, and the extration would have been greater if proper settling accommodation could have been had. Hofman says that the "total value of the ore varies from 5 to 10 dwts. per ton, or an average of about 7½ dwts., and that "it is claimed that 85 per cent. of the free gold is saved.' As the published accounts never credit a larger yield than $4 (4 dwts.) per ton, and generally less, it would seem that the real extraction is probably not much more than 60 per cent. of the total gold contents. Assuming that the sulphurets only reach 5 per cent. on 2500 tons daily, and carry but 8½ dwts., there is a daily loss in them alone of over 50 ounces gold, or a value of some £16,000 per annum, which has been going on for some 15 years. These figures form an instructive commentary on the claims which have been put forward and assertions made regarding the "good old copper plate." The returns of this very company have been quoted against me to prove how small the losses of gold are in ordinary stamp milling. The figures I have given speak for themselves, and no amount of conjuring will deprive them of their significance.

The costs of milling in three of the mills in 1887-8 were 3s. 5½d., 3s. 6d., and 3s. 7½d. per ton (2000 lbs.) respectively, reckoned on over 300,000 tons. The details are:—

	d.	d.
Labour	10½ —	12½
Fuel		13½
Water		8½
Machinery	4½ —	6
Mercury	1 —	2
Supplies, oil, candles, and lumber	½ —	1½

3. Smelting of carbonate and sulphide ores.—Lead smelting was carried on for some time both at the Carbonate and Galena camps on the ores they afford, but has latterly been in abeyance, partly on account of the low price of silver, which is their chief product. Pyritic smelting is in a flourishing condition, under the management of Professor Franklin Carpenter, and deals with auriferous concentrates, and to some extent with the Potsdam "refractory" ores. The smelting furnaces are most conveniently situated on two lines of railway, and beneath the limestone quarry which provides the flux necessary for silicious ores. Coke fit for smelting purposes is not produced in the country, and has to be imported long distances at heavy cost. In pyritic smelting, however, the consumption of fuel is much less than in ordinary copper or lead smelting, because the calorific force of the iron pyrites is utilised (under the best conditions, it is claimed, to as high as 85 per cent. of the total available thermal units). This means a considerable economy if an auriferous iron pyrites is available. The massive pyrites found at Oro Fino, and belonging to the owners of the smelter, can, however, hardly be called auriferous on an industrial scale, as I have already shown; nevertheless, a sufficiency of lump ore is essential for keeping the charge from packing. The furnaces are of the oblong-section water-jacketed type, with modifications to suit the special conditions of the ores and fuels. After all, it is only a concentration process, as the resulting matte has to be shipped out of the country to refiners, who extract the precious metals from it, and it is not generally desired by lead smelters. The actual cost cannot be given, but the usual charges made are $8—$10 (say, 32s.—40s.) a ton (2000 lbs.) on the wet weight of the ore, with various deductions; and probably 20s. a ton is not far from the average cost of treatment. Obviously concentrates cannot be dealt with alone on account of their pulverulent condition, and a certain proportion of silicious refractory ore from the company's own mines is usually added. The extraction appears to be fairly good. Payment is made for 98 per cent. of the assay in gold and 90 per cent. of the silver, and the waste slags are said to average only about 4s. in gold per ton.

4. Treatment of Potsdam refractory ores.—Simple as these ores might be supposed to be, as judged by their composition, revealed in the analysis given, their treatment has been surrounded with many difficulties. Various remarkable explanations were offered me to account for the failure of all the free-milling trials which had been made upon these ores. There seemed to be a general conviction that the gold is not present in the metallic state. I was also assured that exposure of the ore to the elements for a length of time caused a marked deterioration in value, the explanation being that it leaches out under the influence of rain—a very convenient way of accounting for the notable discrepancies between the owners and my own valuations of certain piles of ore. The situation, as I encountered it, is that chlorination is the only mode of treatment successfully established, and, therefore, it will be convenient to describe it before detailing any experiments with other methods.

Chlorination.—In this case the chlorination mills differ somewhat from the ordinary, as they deal with large quantities of mineral as mined, and, therefore, embrace pulverising machinery. A synopsis of the mode of procedure is as follows:—The ore is first put into coarse breakers, which reduce it to egg-size, and passes thence through a stationary inclined brick dryer. As it issues from the dryer it is fed, sometimes by hand and sometimes by elevator, into fine crushers, which in turn deliver it to crushing rolls, set so as to reduce it to ⅛ inch mesh. The crushed ore is next roasted—the more oxidised or "red" ore in Howell-White cylinders, and the less oxidised or "blue" ore in Brückner cylinders. When roasted it is drawn on to a cooling floor, spread, and slightly sprinkled with water, before charging into the chlorinating barrels. The latter are fed with ore from overhead bins, and due proportions of chloride of lime and sulphuric acid are added by hand; all apertures are made secure, and the barrels are slowly rotated by toothed gearing for some hours. When chlorination is complete, water is admitted in several instalments, the barrels being rotated a few times and the solution drawn off after each water. When the washings are finished the solid contents of the barrels are dumped into cars and run to the waste heap. The solutions pass to leaching tanks, where any excess of chlorine is "killed" by admitting sulphurous acid gas, and then to precipitating tanks, where the gold is thrown down as sulphide by forcing in sulphuretted hydrogen gas. The precipitate is carried by water under pressure into filter-presses with asbestos cloths, and is subsequently roasted to remove the sulphur, and smelted into bullion.

In a mill built to treat 50—60 tons a day of "red" ore I found the following plant:—75 h.p. boilers and engines; Blake No. 4 and Gates No. 2 breakers; Howell-White furnace 27 feet by 5 feet; rolls 24 inches diameter with 18 inch face; two barrels 9 feet by 5 feet; six leaching tanks 7 feet by 7 feet; four precipitating tanks 8 feet by 5 feet; two sets of sulphuretted hydrogen generators, one using sulphur and paraffin wax, and the other iron matte and sulphuric acid; besides filter-presses, pumps, fans, elevators, reverberatory dryer, bullion furnace, &c. The labour consisted of two engineers, two firemen, four crusher men, two rolls men, three cooling floor men, two pit men, four dryer men, three roaster men, two barrel men, two precipitator men, two foremen, one chemist, and three mechanics. The estimated consumption of fuel was six cords of wood for the roaster and three for the boilers at $3½ (14s.) a cord, equivalent to 2s. 6d. a ton of ore. The chemicals were reckoned as follows:—

		s.	d.
10 lbs. chloride of lime at $3½ a cwt.....	31c. =	1	3½
13 lbs. sulphuric acid, 66° B., at 2c. a lb....	26	1	1
Brimstone at $2·40 a cwt.....	6		3
Paraffin wax at 9c. a lb.	5		2½
Total.....	68c.	2	10

The weak point in this mill is the roasting capacity. At the Golden Reward mill, which has been brought by Mr. Bamberger, the talented manager, out of a series of failures to a marked success, nearly double as much roaster accommodation is provided. Thus, in 24 hours, 70 tons of red ore pass through two Howell-Whites, consuming six cords of wood, while 30 tons of blue ore are dealt with by four Brückners using eight cords. Efficient roasting is the greatest essential to successful chlorination. With such ores as these, containing so little sulphur, one would not expect the roasting to be as important as in the case of sulphides; but its seems to be quite as imperative, probably for mechanical reasons, the pores of the ore being opened for the admission of the chlorine gas. Finer crushing would undoubtedly assist in the same direction, and experiments have most emphatically proved this, yet the 8 mesh is adhered to, and the extra cost of roasting and reduced percentage of extraction are tolerated.

The total cost of reducing, roasting, and chlorinating varies from about 35s. to 40s. a ton (2000 lbs.). Professor Jenney puts it at $8 (32s.) a ton on oxidised ore, with an extraction of 80—87 per cent. of the gold assay. Bamberger claims that the Golden Reward Company get 90—98 per cent. extraction, which, however, can only be on limited quantities under specially favourable conditions; on custom work, that company charges $10 (40s.) a ton, and allows 90 per cent. of the (its own) gold assay. The ore milled by this company from its own mines is said to average 15—16 dwts. It is admitted that rock below 8 dwts. in gold cannot be profitably treated; but it is claimed that small quantities of 8 dwts. mineral, costing only 3s. 9d. a ton to mine, can be milled so as to yield 2s. a ton profit, if not charged with its due proportion of the expenses for management, depreciation, &c. My own opinion is that, taking the year through, with blue ore and red, the real average extraction is about 75 per cent., while a great deal does not exceed 66 per cent. Assays of tailings are a reliable guide, and I never found less than 4 dwts. in any sample, while parcels taken from a large heap of Golden Reward tailings, which were being used for building purposes, varied from 6 dwts. 4 grains to 7 dwts. 4 grains. Allowing for the loss in weight by roasting, these figures reveal a state of things not very far from my estimate. The fault lies in overcrowding and too much hurry. Finer crushing, more thorough roasting, and longer chlorination are the remedies. But there is an important drawback to chlorination, in that it loses the silver contained in the ore. True, there is considerable ore which does not carry enough silver to make this an urgent matter; but, on the other hand, there is quite a large quantity in which the silver cuts a serious figure. The Golden Reward Company draw the line at 3 ounces silver per ton, and mill no ore of their own which assays above that. Chlorination, though brought to a successful issue on 15—20 dwts. ore, will assuredly never solve the problem of treating the great bulk of these ores. Roasting alone, which is such an essential preliminary to chlorination, never costs much less than 4s. a ton. It is possible that Dr. Pearce's new turret furnace, as in use at the Argo Smelting Works, near Denver, may afford some economy over Brückners for the blue ore, and certainly I should say from what I have seen of it in work, it is more effective; but at Argo they have very cheap fuel, and even there, the cost per ton on 40-mesh concentrates is not below 3s. 6d., therefore I only look to the Pearce furnace for increased efficiency and not for diminished cost.

Bromine.—As a substitute for chlorine, bromine has had several advocates, chiefly on the grounds of its superior activity is dissolving gold and greater handiness in application. So far as I know, no bromination works have ever been erected, certainly none in the Black Hills, and, therefore, figures relating to the cost of the process which have been recently published, referring to the Rapid City mill (in the Black Hills), must be accepted with caution. All the early experiments with bromine were made by applying it in solution in water simply. But it does not dissolve readily in pure water, and no practical result has followed from any of these experiments. More recently the matter has been taken up by Mr. E. C. Englehardt, who had erected a small plant at his laboratory in Denver. He employs a solution of bromine in water acidulated with hydrochloric acid, and adds to the charge in the barrel carbonate of soda sufficient to nearly, but not quite, neutralise the hydrochloric acid, unless much lime or magnesia is present in the ore. The bromine would decompose the carbonate of soda, displacing the carbonic acid and combining with the soda, but the hydrochloric acid present being free, it attacks the soda, forming sodium chloride before the bromine can exert any action upon it (the soda). Some experimental tests on Potsdam refractory ores were made for me by Mr. Englehardt. The ores were, in all cases, roasted quite dead; excess of bromine was used, with abundant agitation and repeated washing. The results were as follows:—

A. No. 1. Passed 30 mesh screen but not 80 mesh; headings, 7½ dwts.; tailings, 1½ dwt.; extraction, 80 per cent.
A. No. 2. Passed 80 mesh and finer; headings, 15 dwts. tailings, 2 dwts.; extraction, 86 per cent.
B. No. 1. Passed 30 mesh but not 80: headings, 13 dwts. tailings, 2 dwts.; extraction, 87 per cent.
B. No. 2. Passed 80 mesh and finer: headings, 13 dwts.; tailings, 1 dwt.; extraction, 92 per cent.

These figures clearly indicate the advantages of fine crushing Nothing has yet been done on an industrial scale to admit of drawing comparisons between chlorination and bromination. Of course, a good deal of freight is saved on bromine as compared with bleaching powder, but the relative consumptions of the two substances are not known. Moreover, an increased demand for bromine would probably raise its price, as its production is not capable of unlimited extension. Further, so far as tests in that direction have been made, it would seem that the presence of much silver is actually detrimental to the action of the bromine on gold, the latter becoming coated with bromo-silver salts that hinder solution of the remaining gold. The fact that bromination bullion is of higher standard than chlorination bullion, is of importance only as showing that the waste of silver is even more serious. For quite small installations there may be a useful future for bromine, but that it can ever compete with chlorine in large establishments is most unlikely, even assuming chlorination as now generally conducted to be incapable of improvement, which it most certainly is not.

Cyanide.—It seems singular that the cyanide process has made practically no progress no progress in the United States, but I think the circumstance is largely due to the fact that no new gold fields are being opened up in that country, and that on the old fields, the outlay having been once made for stamp batteries and chlorination, there is no disposition to sacrifice it even for something better. Yet, if theory and past experience count for anything, the Potsdam refractory ores are pre-eminently adapted for treatment by cyanide. The gold in them is free and exceedingly finely divided; there is much silver, which at present is lost; and virtually no copper to cause a waste of cyanide. Quite recently, a cyanide works under the MacArthur-Forrest patents, has been started in the Black Hills, and forms an excellent illustration of how a mill should not be built. It occupies a terraced site beneath the railway, which delivers its ore into bins on the topmost floor; but this advantage is at once nullified by the crowded arrangement of the machinery, which multiplies the labour and reduces its efficiency. Everything might have been—but nothing is—made to work automatically—an important consideration everywhere, and a vital one where the commonest labour costs 10s. a day. The ore is shovelled from the cribs into the first breaker, and has a small quantity of quicklime added to it to neutralise any possible acidity from decomposing sulphurets. Thence it goes through a reverberatory dryer, a second breaker, and three sets of rolls, which reduce it to 30 mesh, or, rather, should do so, but owing to crowding and hurry, much ore gets through which is fully 20 mesh. The finishing rolls deliver into hand-cars, running on tramrails, which are carried over and supported on the leaching tanks. The cars are emptied by tipping into the centre of each of the six tanks, which are circular, 30 feet diameter and 4 feet deep, and were built up in the mill of ½ inch wrought iron plates riveted together. These iron tanks would seem to be a distinct improvement on the wooden structures recently described by Mr. Eissler. They are much less liable to leak, are more durable, do not absorb solution or gold, and do not decompose cyanide. But the filling appliances are very crude. Every car passing to or from any tank causes great vibration among them all, and the levelling of the charge in each tank is done by men with shovels, who trample all over the contents. Under these circumstances, it is not surprising that the leaching is very partially performed. A suitable arrangement of pumps, pipes, valves, and vats enables the solutions to be used over and over again by fortifying them with fresh cyanide; even the wash waters are never run out of the works, and the only consumption or waste of water is that which is represented by the difference between dry ore going in and wet ore going out. This is important for two reasons—the water supply of the mill is very limited, and the loss of gold in escaping liquors is reduced to a minimum. Precipitation is effected in trays filled with zinc shavings, as usual. The solid tailings are dug out by shovels. One very significant matter has been overlooked in building the mill—viz., the low winter temperature of this region. In order to prevent the freezing of solutions and pulp, a very heavy expenditure will be necessary in fitting the whole mill with steam pipes, and keeping them well filled with steam. A single board building is not adapted to a temperature 20° or 30° below zero F. (50° to 60° of frost), however well suited to summer weather; and the chief experience gained with cyanide has been in genial climates, so that we do not quite know how the extraction will be affected by temperatures in the neighbourhood of freezing point.

Referring to this particular mill, Professor Jenney says cyanide will extract 87 to 96 per cent. of the gold, and 65 to 85 per cent. of the silver contained in Potsdam red rock, crushed to 40 mesh,

treated raw, consuming 1·8 lb. potassium cyanide, and costing 8s. to 10s. per ton. The manager of the works claims that the total cost of chemicals, including zinc, has been reduced to 3s. 9d. a ton, and the total cost of treatment to less than 12s. I had a parcel of about 30 tons of blue ore put through this mill under the direct supervision of my esteemed colleague, Mr. F. H. Bousfield. The charge made was 40s. a ton, including McArthur-Forrest royalty. The result was most disappointing so far as extraction went, though repeated leachings were given. The headings assayed 6 dwts. 18 grains gold; the tailings gave 4 dwts. 7 grains in their sample, and 2 dwts. 18 grains in our own, or an average of 3 dwts. 12 grains, making the extraction less than 48 per cent. This apparently confirms Bamberger's opinion, that cyanide will not treat the blue ore raw; but then the mechanical treatment of our parcel left much to be desired, and I do not consider the experiment conclusive on that point.

Under Bamberger's direction, the Golden Reward Company are adding an annexe to their works for the cyanide process, the object being to recover the silver in the ore as well as the gold. The plant will possess some novel features, chiefly in the substitution of revolving barrels for the usual stationary leaching tanks. This innovation is the outcome of trials on a working scale in the existing chlorinating barrels, and I am assured that barrel treatment occupying two hours per charge gives better extraction without greater consumption of cyanide than in tank leaching. The ore is to be crushed by rolls to 30 mesh. The barrels have been specially designed, and the mill planned by my friend, Mr. Otto Pornell; the barrels are a distinct improvement on the ordinary form, being actuated by toothed gearing encircling the centre instead of at one extremity, and having two convenient manholes, one near each end They measure 9 feet long and 5 feet diameter, and take a charge of 6 tons of ore. The total cost of treatment, including roasting, for blue ore, is estimated by Bamberger to range between 16s. and 20s. a ton, while red ore should be dealt with for 12s. The McArthur-Forrest patents will not be followed. The precipitation method to be used is kept secret, so far as the details are concerned, but bears a close relationship to the Siemens-Halske system described by Mr. Eissler.

Amalgamation.—After studying the efforts and failures of my predecessors, Mr. Riotte and others, in this field, I undertook a series of experiments on fresh lines. From these it soon became evident that the gold is present in the metallic form, principally if not entirely, and that it is amenable to amalgamation. But it is exceedingly fine. Panning even 5 ounce material will seldom reveal a single colour, and I have already remarked that no auriferous placers accompany these Potsdam refractory beds. Attempts at concentration not only failed conspicuously, but the finest sands washed off would constantly assay higher than the original ore, while the concentrates were apparently the harder, heavier, and more barren grains of the sandstone. Small wonder that stamp mills and copper plates had not succeeded. A portion of the gold is so fine that it will remain suspended in water for hours, and can only be recovered by evaporating to dryness. Whilst I am not at liberty to describe my experiments and their results in detail—and, in fact, they are not yet completed to my entire satisfaction—I can assert that there is good ground for believing that, under certain conditions, amalgamation can be made to give as good results as chlorination on these ores, at less the cost and without losing the silver. The first essential is fine reduction, not less that 80-mesh, and better at 100. Preliminary roasting does not give any better extraction, but roasting (or, rather, heating to redness) and quenching in cold water make a very marked difference in the rate and cost of reducing, without incurring any commensurate expense for fuel. A Chilian mill will be far superior to stamps in this connection.

Conclusion.

Perhaps, I may be allowed to conclude this paper with a few general observations, based upon personal investigation during a 12 months' stay in the country. There are so many pregnant facts which are carefully veiled from the stranger expert who pays a flying visit, and so many interesting features that do not develop themselves in a week, apart from mere matters of geology, mining, and milling, yet which collectively have an important bearing upon the question whether capital should or should not be invested.

The free milling belt claims first attention as being profitably worked on a large scale. So far as that is concerned, practically all the best ground is owned or controlled by the Homestake Company, who, in addition, monopolise all the available water, and have already stripped the neighbourhood of trees. They have been established in the place for nearly 20 years, and are not likely to have overlooked much that was worth having. Only a large undertaking could be made profitable, and such would render the labour question even more acute than it is already. On this latter point I speak feelingly from personal experience, having suffered corporeally from the violence of an armed mob, whose conduct caused a total suspension of our operations for nearly six months, and against whom the local authorities either could not or would not grant any redress.

As to the 4000 or 5000 mining claims on the refractory ore bodies, the great majority are rank "duffers." The few good ones that are in the market—and they are very few—are held at ridiculous figures. It is a most significant fact that there is only one single corporation working exclusively on these ores that has been able to keep its head above water. This corporation owns or operates something like half a hundred claims, or approximately 500 acres of mining ground, which have been necessary to enable it to keep up a steady milling of about 100 tons daily. Latterly, even with such an enormous territory to draw upon, it has fallen out of the dividend list. The problem of profitably treating the low grade refractory ore, ranging, say, from 5 to 10 dwts. has not yet been solved, nor do I believe it will be, until the rates of wages and other conditions more nearly approach European standards.

It is necessary to caution the unwary against misleading statements in American publications. As an example of what I mean, I will quote from a pamphlet, embellished with the State seal, which was prepared, I believe, to "boom" the place at the Chicago World's Fair. This entertaining publication says that there are "now in operation" in the Black Hills "22 pyritic smelters, running 1200 stamps, and handling 5000 tons of ore daily; three tin mills, handling 650 tons a day; five gold chlorination plants, handling 270 tons a day; and three gold and silver chlorinating plants, handling 240 tons daily." The facts are are as follows:—

There is one pyritic smelting establishment possessing three furnaces, and capable of a maximum output of 200 tons daily. Seldom more than one furnace is in blast, and even that is often blown out for lack of ore.

There are two lead smelters, one at Galena and one at Carbonate, which have long been idle, and are for sale.

In the tin mills at Harney Peak, English capital has been sunk to an amount bordering on the seventh figure, without, I believe, ever having put a ton of tin on the market.

Of five chlorination mills one only is in steady operation; one is a shell without any machinery in it; and the remaining three have run but in short spurts if at all.

Besides these, there is a long list of amalgamation and other mills, all now silent, and some of which, having been built on "salted" mines, have never dropped a stamp. I can readily count seven of these mute evidences of misdirected investment.

THE DISCUSSION.

The PRESIDENT said that Mr. Lock had kindly condensed his paper, in order to admit of a full discussion, and he hoped it would be forthcoming.

Mr. J. H. COLLINS wished to make one or two remarks by way of question. The paper contained a reference to large masses of sulphide ore changed to carbonates in the upper portions. They were, of course, quite familiar with sulphide ores which had changed to oxides, but he should be glad to have some additional information as to the way in which it was supposed masses of sulphide ores could be turned into carbonates. Further on there was, he believed, an instance of the use of a word in two different meanings. When people spoke about the mineral riches of a particular district coming from below, they did not always mean that these riches came in the form in which they were now seen, and they had there Mr. Lock's view—probably a correct one—that the mineral riches in their origin came up from below in the form of solutions, and appeared now as precipitations near the surface. In one way, then, they might speak of mineral riches coming up from below, and in another they might speak of them as surface deposits. Mr. Lock had spoken of the cost of roasting ores by Mr. Pearce at Denver as 3s. 6d. a ton. No doubt the author had the latest information, but when he was there last year the cost was given by Mr. Pearce as 2s. per ton.

Mr. JOSEPH GARLAND said that Mr. Lock's paper, which the author had described as "Gold Mining and Milling," &c., was in a great measure a geological paper, and contained a great deal more geology than mining. For the most part, he gathered, the ore bodies in Dakota did not exist continuously, but as lenticular veins. It was interesting to learn how these veins occured. According to the diagram, they were almost vertical, and as they were detached masses, it would be interesting to know further how they were developed; how they were opened up; and how a connection was established between them. Were the vein beds defined by walls, and were they generally worked away from wall to wall? The enclosing rock was schist, but it would be interesting to know what the vein matter was composed of. Mr. Lock described quarrying fully, but said little or nothing about the underground method of working the ore bodies. Later on the author had fling at the "fissure vein," and he had been rather sorry to hear Mr. Lock speak disrespectfully of the fissure vein, of which they had heard a good deal at the last meeting. He hoped that in future no member of the Institution would be afraid to use the term "fissure vein," because it had been spoken flippantly about. The term was a perfectly admissable one, quite independently of any theory, as to the origin of the mineral filling." A fissure might have been filled up by ejection from the bowels of the earth, or otherwise, but the fact remained that there were undoubtedly fissure veins; and probably the majority of those present would agree that most of the mineral veins were fissure veins. He had been much struck with the cost and speed of mining obtaining in Dakota. It seemed that a miner, working single-handed, could drive a level or gallery at the rate of from 1 to 3 feet per shift of ten hours. Such a rate as this was seldom attained, he should imagine, outside Dakota. For day labour in very hard rock the cost was said to be only 14s. a foot, or, say, four guineas a fathom, and on contract work only 12s. a foot, or £3 12s. per fathom. These figures were very surprising, and he had never had any experience of hard rock having been bored at such a price. No doubt the figures given were correct, but if the work could be done at such a cost in Cornwall, there would have been no need for lowering the wages.

Mr. JEREMIAH HEAD was without an expert knowledge of gold mining, but he had listened to the paper with much interest. He had been in Utah during last September, and, though engaged in railway matters, he had profited by the opportunity of visiting several of the smelting works, where the mills were dealing with ores containing silver, lead, copper, and a little gold. He found that the silver mining industry was very slack there, so much so that miners who were accustomed to earn large wages were now being employed making roads, laying down water-pipes, and sanitary work generally. Instead of 10s. they were only earning about a dollar a day. Some 30 miles from Salt Lake City they were carrying on boring operations right through the mountain, in order to get rid of the water in the valley on the east side by adit, instead of pumping it out at very great cost as hitherto. The author had spoken of the bad outlook for mining in Dakota, owing to the dearness of labour, but in Utah and Alabama, he had found that negro labour was very plentiful, and that its cost was as low as 95 cents a day. This was the reason why they were making pig-iron in Alabama cheaper than anywhere else in the world. The wages had not been lowered without collisions between the negroes and the whites, and many of the former had been murdered. Eventually, however, the Governor and Volunteers at Alabama had managed to support law and order, and to give the negroes liberty to work at whatever prices they might choose. These negroes, moreover, were working their way into other parts of the United States, and there seemed, therefore, no reason why the price of labour should not ultimately fall to a reasonable figure.

Mr. MACTEAR said he was afraid he could add but little to the discussion excepting by way of asking for further information. He had not found in the paper any information as to what might be taken as the average value of the ore all through. The rushing of the largest possible quantity of ore through the mills in order to cheapen the cost, and the ignoring altogether of how to get out the best results, was very much the American practice. Some figures he had taken out as to the working of another mine in the same district showed nearly the same results. The amount of gold stated as coming into the mills was not to be relied upon, for it was pretty generally recognised that the American manager took care that it should be under-estimated, in order to make the returns look as well as possible. He should be very glad if Mr. Lock, in his reply to the discussion, would quote approximately the cost of roasting the ores to redness. The information conveyed in the papers as to the roasting in the different classes of furnaces was very interesting, and he should like to state there that these types of furnaces were simply improved editions of some originated in England.

Mr. H. F. COLLINS said that, according to his experience, the cost of driving in rock did not vary with the rate of wages paid in different districts. As an example of this, he might cite the fact that in North Mexico the miners got a dollar—or 2s.—a day, while in the South they received 50 cents—or 1s.—the cost of driving in equally hard rock being in both cases the same. He might, in conclusion, hazard the supposition that the 8 mesh crushing was adhered to in Dakota, owing to the fact that fine crushing interfered with the rate of leaching of the ore.

Mr. CLAUDE VAUTIN criticised the chemical passages in the paper, and said he could not suppose that the analysis quoted as that of the Potsdam refractory ores could be that of a typical sample. Reference had been made to the manner in which the American engineers rushed large quantities of ore through the mill; but in dealing with masses of low grade ore he was not at all sure that this was not the most advisable method to pursue. Speaking of the hasty manner in which the American rushed his ore through the battery, the author had referred once more to the almost thread-bare subject of amalgamation; but he saved himself by saying, to begin with, that the actual value of the ore remained unknown. That being so, he was afraid a good many of the figures adduced lost a good deal of their value. (Hear, hear.) The average value of the ore was said to be from 5 dwts. to 10 dwts.—or an average of 7½ dwts., and it was claimed that 85 per per cent. of the gold was saved. He wished to ask the author whether any systematic sampling or assaying of the tailings had ever been made as they were running away.

The CHAIRMAN did not see how a reaction could possibly follow from the formula quoted by the author in the early part of his paper, and how Franklin Carpenter had arrived at such a conclusion he could not tell. Certainly it would not meet with general acceptance. As to the cyanide process, he agreed that it was very doubtful whether barrel amalgamation would be at all an economical process. In dealing with ore of a certain richness in moderate quantities it might answer, but in dealing with comparatively pure ore on a large scale he could scarcely believe that it would answer.

The AUTHOR, in answer to his critics, said he would first deal with the question of the depth of the deposits, raised by Mr. Collins. Of course, they had originally come from the lower regions, but he wished especially to insist upon the fact that they could not be traced downwards as deposits available for the miner. They might certainly hold that the igneous rocks had all come from below, and that they had been followed or accompanied by the thermal waters. But the question of the deposition of seams carrying metals was, at any rate in this case, to his mind purely a surface matter, and there was a variety of testimony to prove that he was right. All attempts to find rich deposits at great depth in the Potsdam formations had hitherto failed. As to the cost of roasting by the Pearce furnace, the figures he had quoted had not been obtained directly from Mr. Pearce himself. During his visit to the Argo Works he had spent a long time in gathering data as to the cost of the roasting. To his mind it was a singular thing that the Potsdam ores, which were so moderately pyritiferous, should require so much roasting. It was, however, a fact that any curtailment in the amount of roasting immediately resulted in a largely-reduced extraction of gold by means of chlorine. In answer to Mr. Garland's complaint as to a maximum of geology and a minimum of mining, as a matter of fact the length of the geological portion of the paper was in deference to a wish expressed in the Transactions of the Institution—that members who had visited strange regions should contribute as much information as possible on the origin of the metalliferous formations they had to deal with. (Hear, hear.) These questions in relation to the Potsdam deposits were of exceeding interest not only in themselves, but also in connection with the origin of metalliferous deposits generally. (Hear, hear.) The mining upon the Potsdam deposits was exceedingly simple, and he had already described it. Perhaps he had been a little misunderstood in reference to the fissure vein question. It was far from his intention to deprecate the fissure vein when it existed. What he did deprecate was the effort frequently made by miners, and those interested in putting a good appearance on properties, in insisting upon all deposits being fissure veins. This course frequently brought the true fissure vein into disrepute. The figures given in the paper as to the cost of driving were actual figures paid under his own supervision, and were thus absolutely correct. Mr. H. E. Collins appeared to have had the same experience in the cost of driving as he. Specimens of the rock were lying on the table. Of course it was chiefly sandstone. Mr. Head had touched upon the cost of labour. It was one of the extraordinary features of Black Hills district that the miners practically dominated the country, and they had managed to keep the rate of wages up to a very high figure, despite the fact that everything else come down. When the negro or somebody else came into the country there would be some prospect of Black Hills being properly developed. Under present circumstances, this was practically impossible. Mr. Mactear had raised the question of the value of the ore produced by the Homestake Mine, and he had given the figures as being from 5 dwts. to 10 dwts., and with an average of 7½ dwts. These results, he might mention, were not from his own samples, for he had no opportunity of taking any, but were based on the figures of Professor Hofman. The value of the tailings was shown by the fact that three separate undertakings had been formed to work the tailings flowing away from the works. He was afraid he could not give Mr. Mactear the cost of simple heating to redness. Of course, a great deal would depend upon the size of the crushing. It would take a very much less time, and cost very much less to roast ore which was crushed to a 30 or 40 mesh than would be the case with 8-mesh, but he had no particular object to gain in ascertaining the definite figures. As Mr. Mactear had hinted, most of the American milling and mining appliances might honestly be claimed by European originators. In some cases the Americans had added improvements, forced upon them by the high cost of labour and other local conditions—such, for instance, as their hasty method of doing things. The chemical formulæ he had adduced were advanced not upon his own authority, but upon that of Dr. Carpenter, and he had embodied them in his paper rather with the view of eliciting the opinions of able metallurgists like the Chairman, than for any other purpose. Mr. Vautin had expressed the opinion that the method in vogue at the Homestake Mills—that, viz., of rushing as much of the material through as possible—might be completely defensible from a commercial point of view, but he thought there was some justification for endeavouring to obtain the best possible returns even at the risk of having a rather smaller output. In many mills he had visited, there was a distinct inclination to be wasteful, and he thought this was a thing which should certainly not to be encouraged. Mr. Vautin had furthermore criticised his practice of stating results in percentages, but he (the author) had taken care throughout to give the actual figures and values. He was glad that there had been so full a discussion on the paper, and it was with the view of educing such that he had rather hurried the reading of the paper. (Applause.)

A vote of thanks to the author terminated the proceedings.

New Kleinfontein Company.

An extraordinary general meeting will be held in Johannesburg on the 20th February for the following business:—1st. To take into consideration the advisability, or otherwise, of the purchase of about 92 dip claims from the Benoni Claim Gold Mining and Exploration Syndicate (Limited), for 60,000 shares of £1 each fully paid in the above company.—2nd. In the event of such purchase being confirmed, the capital of the New Kleinfontein Company (Limited) to be increased from £110,000 to £185,000, to be allotted to the Benoni Claim Gold Mining and Exploration Syndicate (Limited), in full payment of the said claims, 60,000 shares, to be issued *pro rata* to the shareholders of the New Kleinfontein Company (Limited) at £4, in order to provide working capital, £15,000 shares. This issue has been guaranteed by the Benoni Claim Gold Mining and Exploration Syndicate (Limited), they taking all shares unapplied for by the shareholders at £4.—3rd. For considering the advisability of, and, if thought fit, resolving to amend the Articles of Association of the company.

The secretary of the ISLE OF MAN MINING COMPANY sold on Tuesday, 100 tons Foxdale lead ore at £8 12s. 6d. per ton.

The transfer books of the BUFFELSDOORN ESTATE AND GOLD MINING COMPANY remain closed from 31st of December, 1894, to 30th January, 1895, for the purpose of a special meeting to be held at Johannesburg on 30th inst. The books reopen on the 31st ult.

THE Lührig Coal and Ore Dressing Appliances (Limited) has secured a contract for a coal-washing plant for the Allen Coal Company (Limited). The Lührig Company has just completed a washing plant at Gilbertfield Colliery for the Cambuslang Coal Company (Limited).

THE De Lamar Mining Company (Limited) give notice that the dividend warrants for the 15th dividend of 1s. per share (free of income-tax) have been posted this day to all shareholders registered on the company's books on the 31st December, 1894.

PAHANG KABANG.—Monthly report for November: I beg to send you my monthly report of the work done on the Myah lode for the month of November. Myah new adit was advanced west on the lode 26 feet, total 188 feet, lode 4 feet, showing little tin. Old adit was advanced 9 feet, total 612 feet. Lode 4 feet 6 inches wide, composed of soft quartz and soft blue clay mixed with hard killas. Winze B was sunk 28 feet, total 49 feet. Lode 3 feet 6 inches wide of good appearance. This winze is deep enough now for the new adit to hole to which I expect to do in a few days. No. 1 above was advanced on the lode west 36 feet, total 150 feet. Lode 4 feet wide mixed up with soft quartz and killas.—(Signed) David Wm. Jones.

SHEBA.—The following information has been received from the general manager, under date December 28:—Electrical cable. 36 lengths (7920 yards) of cable have been laid, 28 connections have been made, and a loop of 3½ miles tested and found satisfactory. The telephone cable is being laid with the transmission cable and the trench filled up.—Low level tunnel. The crosscut to No. 7 level was connected at 9 a.m. on the 24th inst. The survey came out very accurately. The loop over which the levels were taken was nearly 3000 feet in length—*i.e.*, from No. 7 level up the incline shaft out of No. 5 and down the road to the mouth of the tunnel, from there in 1280 feet and a further 192 feet in the crosscut to the No. 7 level. Where the connection was made we found a little good ore, and also in blasting up the floor of the level. This is the furthest point west that we have found ore, and is just east of the Edwin Bray Block boundary.

MEETINGS OF MINING COMPANIES.

CONSOLIDATED GOLD MINES OF WESTERN AUSTRALIA.

Statutory meeting in Glasgow.—Encouraging speeches.

The first statutory annual general meeting of the shareholders of the Consolidated Gold Mines of Western Australia (Limited) was held at 51, George-street, Edinburgh, on Friday of last week,—Colonel HENDERSON presiding.

The SECRETARY read the notice convening the meeting.

The CHAIRMAN: It now becomes my duty, as well as my pleasure, as temporary Chairman of this company, to offer to you a few remarks, and a very few they will be. I think that you are all well aware this is an ordinary statutory general meeting, which, under the Companies Act, we are compelled to call within four months of the date of registration, failing which we, of course, should incur a very heavy daily penalty indeed. In the next place, this meeting is a purely formal one, and it very seldom happens that any business of any importance can be transacted, or that very much information can be imparted to you, our shareholders. There are obviously at this stage no accounts to present to you, and there are very seldom, indeed, any reports whatever available. Still, it is always a useful meeting, as affording the directors the first opportunity of coming face to face with their shareholders, or, at least, with a section of their shareholders—I wish there were many more here, but I shall allude to that a little later on—and letting the shareholders know the general history of the company from its first inception down to the actual moment of this meeting—most especially as regards the placing of the shares and the general future prospects of the company. In the hope that we might be in receipt of a cablegram containing a report from a lately-appointed mine manager, we have put off the holding of this meeting till almost the eleventh hour. We have called this meeting here in Edinburgh because we considered that as this company was incorporated and registered in Edinburgh, and therefore is, in all senses of the term, a strictly Scottish company, it was only right that this first meeting, at least, should be held in Edinburgh. We regret to say that this decision has given rise to a certain amount of irritation amongst the shareholders in and about London. We very deeply regret this, indeed, because some of them are very influential shareholders. I can only repeat that your directors are very sorry for it, but they were actuated in coming to their decision by the best possible motives, and they will endeavour a little later on to make it up to London. Now, gentlemen, a few remarks as to the formation and flotation of this company. It was duly incorporated and registered on the 26th September, 1894, on which day also your board of directors was appointed. On the 4th of October the board proceeded to the allotment of shares As you are aware from the prospectus, the amount of £25,000 in £1 shares was offered for public subscription. The board allotted as nearly as possible 21,000 shares. The balance between the 21,000 and the 25,000 was due to a very few withdrawals and also to the fact that the board, or a committee of the board, decided not to register any subscriptions for sums less than £5 worth of shares. The balance of capital, however, was subsequently applied for and subscribed; and to-day I can tell you that the whole of the capital of the company has been subscribed for and paid up to date. (Applause.) Then, gentlemen, it became necessary, in view of the immediate transfer of the property to this company, to at once arrange that some gentleman should proceed out to Western Australia to take over formally from Mr. Church, who was acting as manager, the mine, machinery, and everything connected with it; and ultimately the choice of the board fell upon a gentleman of the name of Mr. Frederick Sheils, a young gentleman who was very strongly recommended to us. He had very excellent references, and he seemed in all respects likely to prove the right man in the right place, so that we decided on the 10th October to appoint him, and he sailed for his destination on the 19th, having been appointed on the 10th, so I think you will agree with me that there was not much delay in that case. His position, I may mention incidentally, will be that of an accountant, book-keeper, and store-keeper. If he proves a success, the board will be glad, and will be able to retain him in their employment. If, on the other hand, from any cause whatever this gentleman turns out to be unsatisfactory, then the board have retained power to terminate his engagement at very short notice. But the board had then, gentlemen, to tackle a very much more difficult task, and that was to select not only a thoroughly competent mining expert, but one in whom, on your behalf, the board felt that they could place implicit confidence when he was 10,000 miles away. This gentleman was to go out and take over the entire charge of the mine, machinery, and everything connected with it, and to work and develop it to the best advantage. Having gone through this matter a dozen times, gentlemen, I can assure you it was no easy task. Finally, I believe that the board have got what they sought for in the person of Mr. Walter Marsh, who has now gone out as mine manager and chief superintendent. He is a man who has had very long and varied experience in almost every quarter of the globe. He was able to give your board unusually good references, all of which, I may mention, we took up and verified, and in the result we were fully satisfied. One of my colleagues, who is unfortunately unable to be present to-day, and who is a mining authority of no mean repute himself, has had personal acquaintance with Mr. Marsh in mining matters for many years, and he considers that we have made a very wise selection. I cannot say more than that we have done our best, and we believe that we are lucky. This gentleman was appointed on October 26, and he actually sailed for his destination on November 2, so there again I don't think you can say there was very much delay. Mr. Marsh actually arrived at the mine the day before yesterday afternoon, and in response to a telegram which he found there awaiting him asking him to send home a report in time for this meeting, he wires as follows:—"Only arrived here to-day. Could not examine mine in time for your general meeting. Church (that is the man whom I referred to before) represents mine looking very well.' And that cablegram is signed by the two of them—Marsh and Church. You will see, therefore, gentlemen, the reason why we are unable to give you that which we expected to-day—a report from the mine; but from what I know personally of Mr. Marsh, he will send a report as soon as he has had time to make an exhaustive examination of the mine, the water question, the machinery, and the other things connected with the mine. Now, gentlemen, before I quit this subject of the mine, which I am somewhat loth to do, I would mention that the board fully recognises the responsibility which rests on them to carry out sooner or later the intention which they had expressed in the paragraph of page 2, in regard to the milling capacity of our mine, and until we have a full report from Mr. Marsh, indicating what his plan of campaign is going to be—by which, of course, they must be to a large extent, if not altogether guided—it is impossible to say what will be done. If Mr. Marsh says that an immediate increase in the crushing power is necessary, he will have it; if, on the other hand, he disagrees by abstaining for some little time, we will in that case equally meet his recommendation. Now, I think that most of you in this room would be glad to learn very much more fully than you possibly can from any prospectus the geological position of the mine, its climate, its water, its timber, its labour, and all these things which have such a very intimate bearing upon the success or the failure of any mine. Now these, gentlemen, I do not propose to give you, because in the presence of Mr. Albert F. Calvert it would be an absolute impertinence for me to attempt to do so. It is true that I have gained this knowledge, but I have gained it laboriously by wading through very dry reports. Mr. A. F. Calvert, our managing director, who is here to-day, has gained this experience by his personal residence on the spot. As he is not only willing, but anxious to impart that knowledge to you, I will ask him, when I resume my seat in a very few minutes, to give you that information himself. (Applause.) But, gentlemen, quite apart from our primary, and what I regard as our legitimate duty of acquiring and working this Coongan Mine, we took powers, as you are aware, not only in the prospectus, but in our Articles of Association, to acquire interests in other mining properties situated in Western Australia, and to dispose of such interests as opportunity might arise to the best of our ability. Those powers we mean from time to time to exercise as far as we reasonably and prudently can, and we are doing so; and, in fact—and this is the point to which I wish to direct your attention to-day—we have lately done so. In fulfilment of the permission in the prospectus, and, I must say, entirely through the medium of Mr. A. F. Calvert, we have within the last few days succeeded in obtaining for this company an allotment of not less than 10,000 fully-paid shares, of the nominal value of £1 each, in another mining property in our own district. These shares are absolutely made over to us; and, I believe I am correct in saying that the market value of those 10,000 shares was yesterday afternoon £16,250. (Applause.) In addition to that, within these last 24 hours—again entirely through the instrumentality of Mr. Calvert—we have acquired a very much smaller, but, we think, valuable interest, amounting to 2500 shares in another and adjacent mine in our own district, and that makes 12,500 shares, which are the property of this company at present. Now, gentlemen, as regards these shares, it will be, I think, for the board a little later on—because we cannot immediately realise them—to consider how we should best, in the first place, realise them, and, when realised, how we shall dispose of the proceeds of these shares in the best interests of the shareholders of the company. That will take us some time, and it will give us anxious consideration; but ere that happens, I hope, and I think—unless something very unforeseen happens indeed—that we shall have acquired in another mining company a very much larger stake indeed. I think that we shall acquire within the next few weeks—I say I think, because I cannot use any other word—but I think it is extremely probable that we shall acquire in another company a holding of something like £20,000 in shares. You will, therefore, see, gentlemen, that the board, though they are completely idle at present as regards mining matters, are endeavouring to carry out the promises which were given in the prospectus and in the Articles of Association, and we have not up to date imperilled one single penny of your money. We have not staked out a shilling of your money yet, and I don't think that you need to be very much alarmed in the future, even although we may sometimes, of course, have to bait a sprat to catch a salmon. When you look to the fact that the great majority of your board are composed of Scotchmen, I think you may agree with me that a certain amount of caution will be always exercised, for here we are certainly not going into any "wild cat" scheme. I don't think I need detain you any longer, gentlemen. I shall be very glad later on to answer any questions you may wish to put. In conclusion, I would only ask you, as I always ask every audience that I ever address on mining matters, to remember one fact, and that is, that all mining is, and ever must be, from its very nature, highly speculative, with very rich rewards sometimes, and often with corresponding losses. Though, of all men in this world, mining engineers, mining captains, and their subordinates, are the people who are most liable to encounter unforeseen obstacles, delays, and difficulties, I must say they are the men who usually most successfully overcome them. As far as I can judge—and I don't wish to be too sanguine—we have a bright future before us. If it is so, gentlemen, you will be always very glad to see us; if the future should not be so bright we shall not be afraid or ashamed to meet you, because we shall feel that if we have not achieved success, we have certainly done the best to discharge the onerous responsibility we have taken upon us. I shall now ask Mr. Albert F. Calvert to address a few remarks to you, and when he has concluded I—or rather we—shall be very glad indeed to answer any questions or give any information which any shareholder may desire. (Applause.)

Mr. CALVERT: After the able manner in which the Chairman has laid the business of the company before you, I find it difficult to add anything in connection with the various undertakings which this parent company, if I may so call it, has in hand; but a few words from one who has made several visits to Western Australia, and particularly to the Coongan Mine, which is the property of this company, may be of interest to you. In commencing, it may be thought that I am prejudiced in favour of the north-western district of Australia, seeing that it was to this region that my attention was specially directed during three separate expeditions of exploration. On the contrary, however, I am not blind to the phenomenal revelations of Coolgardie's immediate wealth, nor have I ever altered my opinion regarding the promises held out by the reefs on the Murchison Field, the geological formation and general condition of which lead me to consider that the latter district is second to none in respect of permanency and lasting productiveness. The Murchison Field, moreover, is not so heavily handicapped by Nature as Coolgardie or Yilgarn, either with reference to water, fuel, or accessibility. But the declared district of Pilbarra, which includes Marble Bar, is still more advantageously situated, not altogether in geographical position, although its nearness to the sea must not be forgotten, but certainly as regards the all-important water supply, either for steam, gold-washing, or domestic purposes, and also for timber. One has only to consider the tremendous barrier which lack of water interposes between the gold miner and the object of his search to appreciate the incalculable benefit which the Coongan mine will derive from the close proximity of a plentiful supply of water in the Coongan river. It will, however, be good news to you to hear that a good supply of water has recently been struck close to the Coongan Mine, and we are now proposing to remove our machinery from the river two and a-half miles distant, where we have special water rights, to the mine. This will enable us to treat our ore at a much lower rate than it has been worked up to the present, as we shall save all the carting expenses. Only about 160 miles separate our mine from Roebourne, access being gained over a good level road, and telegraphic communication has recently been established. Then there is the small but thriving township of Marble Bar, where the necessaries of life can readily be procured. We have not purchased an unproved claim on speculation; the most laborious work has already been done, including the initiatory prospecting, the opening up, and starting of the mine, and the erection of machinery. Again we have three principal reefs. No. 1 has been traced from end to end of the property—a distance of about 1000 feet, averaging from 4 to 7 feet in width. The stone from No. 2, where it has been proved to be 2 feet in width in many places, has yielded up to 4 and 5 ounces to the ton. Nearly a thousand tons of ore have been treated from this property, which has given a return of over 2 ounces to the ton, and as I expect at the very most our expenses will not exceed ½ ounce to the ton. I hope from this mine alone we shall be able to pay very regular and substantial dividends; but I look upon the profit that we shall earn from the Coongan Mine as small when compared with the profits I expect the the company will make out of the properties they have acquired, and which I hope to acquire when I arrive in the colony. Now, in spite of the erection of Huntington mills, abundance of water, and so forth, I do not for a moment believe that this property has ever been properly—that is, scientifically and exhaustively—developed. This system of partial development and slovenly mining is the rule all over Western Australia, causing disappointment, discouragement, misunderstanding, misrepresentation, and serious loss all round. It is the lack of management, skill, and system which gives her such paltry returns, compared to South Africa. Bear in mind, however, that eight years ago the entire output of South Africa was 20,000 ounces, roughly valued at £70,000, and yet since 1886 she added £18,000,000 to the world's wealth. At present her system of working and the returns from her Chamber of Mines leave little to be desired. Western Australia will, I contend, gradually be compelled to move with the times, and follow South Africa's example in many respects. To return, I hope that our concentrates and our tailings will be made to yield the last grain of gold before we part company with them. What would we think of a flourmill where only the fine flour was accounted for—the seconds, bran, tail-end sweepings, and so forth being thrown away as rubbish? Yet this has been the way in Western Australia, but I hope now that we shall be able to start on fresh lines, and to extract from the ore the highest percentage of gold. With this view, we have secured the services of Mr. Walter Marsh, in whom your directors have every confidence. Under his management, you may rely upon the expectations of the board being fully carried out, and work being proceeded with in a thoroughly practical and systematic manner by a man who is, in my opinion, equally, if not better, qualified for the duties than any man in the Pilbarra district, I took the opportunity one day last week of interviewing Mr. H. F. Pearse, on his arrival from North-West Australia. He is considered a very reliable and well-informed mining man in the colony. When I mentioned the Marble Bar gold field, he at once said—"The best property is undoubtedly the Coongan, which, as a proved mine, is far in advance of any other properties on the field. I shall expect to hear good reports from this mine soon." I had intended starting for Western Australia before now, but as the season for travelling in the North-west portion of the colony is not at its best just now, and again, as I have been occupied in connection with the properties we have already acquired, I did not think it wise to leave for the present, and the directors, I may say, are of the same opinion. But I hope that the matters which the company has at present in hand will be completed in a month or so, after which I shall not lose a day in starting. In conclusion, I shall refrain from entering into any figures as to the probable profits which are likely to accrue to this company during the next 12 months, for, much as I am tempted to do so, I must be content to wait for the work we have in hand to answer for itself. Any estimate that I might make from my personal knowledge of our property, and the position this company has already attained to, would, I feel sure, appear to good, to be true. (Applause.) I have got some sketches here showing the mine and its conditions of working, and I shall pass round copies of them for your inspection. (Copies were accordingly handed to the shareholders present, and examined by them.) Mr. Calvert: The sketches do not show the machinery, which is about 2 miles away from the mine; but they show all the workings. We now propose to erect the machinery right on the spot, as we have struck water there. There is also a plentiful supply of water in the Coongan river, and quite fresh too. There is one other interesting point that I forgot to mention. The largest nugget ever found in Western Australia came from Coongan. It was valued at £1200. The mine is less than 100 miles from the coast, and the port is one of the finest on the coast of Western Australia.

A SHAREHOLDER: Are you in a position yet to mention the names of the companies in which you have acquired shares?

The CHAIRMAN: I could do so if I chose, but I think it would be very indiscreet. It might imperil negotiations which are at present going on. I would rather not.

Another SHAREHOLDER: What is the probable cost of removing the machinery from its present situation to the mine?

The CHAIRMAN: That we have no means of knowing yet. That will be the first thing that our new mining manager will report on. You cannot form any conception yourself of the cost.

Mr. CALVERT: I think the rate they have been charged before is about 12s. per ton. I think they could remove the whole in about a month. It is just the delay in working. We have two separate mills, and we can remove one at a time, and keep one working. It is a question of less supply; but Mr. Marsh will settle that when he arrives there.

Another SHAREHOLDER: When you have got these mills started crushing, do you propose issuing monthly returns?

The CHAIRMAN: Yes, once the crushing mill gets into working order, and everything gets smooth, we shall do that.

A SHAREHOLDER: Is there plenty of ore ready to crush at the present time?

The CHAIRMAN: Yes; I think that is stated in the prospectus.

Mr. CALVERT: Yes.

Mr. SIMPSON: The prospectus states the mine was to be a going concern. The reason why it was not started between that time and this, I understand, was that there was a stoppage to enable legal details to be carried out, and that as soon as Mr. Marsh arrives, he is to pick up the threads.

The CHAIRMAN: That is so.

Mr. CALVERT: A month's exemption was granted.

A SHAREHOLDER: There has been something said—I have heard it said—that the shares of this company have not been fully applied for.

The CHAIRMAN: All the shares have been applied for.

Mr. SIMPSON moved a resolution to the effect that the remuneration of the directors be £1000 per annum, and be apportioned amongst them as they think fit, together with a commission at the rate of 5 per cent. of the surplus net profits in each year after the payment of a dividend at the rate of 10 per cent. on the amount paid up in each year.

Mr. ANDERSON seconded the resolution, which was carried unanimously.

The CHAIRMAN: That, so far as we on this side of the table are concerned, closes the business of the meeting. I must say that we shall do our best to earn the remuneration which you have been pleased to pass to us. I will go further, and I will say this—that if a time should ever come when the resources of this company are temporarily crippled, we will be the very first to offer that a large proportion of our fees should go into a suspense fund, to be afterwards adjusted. (Applause.)

A SHAREHOLDER: Would you allow me to ask whether the results of the working are to be sent to the shareholders, or published in the newspapers?

The CHAIRMAN: We propose from time to time—we don't like to be bound down by any arbitrary conditions—but we propose from time to time to communicate to our shareholders, either by circular, or through the medium of the financial and mining papers all that passes at the mine, and all the concerns of the company.

A vote of thanks to Colonel Henderson for presiding concluded the proceedings.

EXPLORING COMPANY, LIMITED.

A brilliant record—Capital three times returned.

The ordinary general meeting of the Exploring Company (Limited was held on Monday, at the Cannon-street Hotel, E.C.,—Mr. J OAKLEY MAUND presiding.

The SECRETARY (Mr. G. G. Walker) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said that the meeting had been deferred over the period prescribed by the Companies Acts, in order to give to every shareholder in this company, who was not a shareholder in the British South Africa Company, an opportunity of studying the reports and appendices of the latter company. This delay in the meeting of the British South Africa Company was caused by the infinite labour required for the compilation of their report and appendices, which he considered a monument of information. (Applause.) The slight apparent discrepancies between the report and the accounts might be explained by the fact that their report came up to date, while the accounts closed on November 30 last, which was the end of their financial year. Passing to the accounts, they would see on the credit side that they had cash in hand and loans at short date amounting to £28,400. This amount, in addition to £6000 under the head of sundry debtors, which had since come in, was simply sufficient to meet their liabilities on the partly paid-up shares in the Exploring Land and Minerals Company. Alluding to the general heading of debtors, he said that their interest in the Transvaal Minerals (Limited) had been transferred to the new Exploring Land and Minerals Company. This interest in the Transvaal Minerals, together with the Transvaal Mineral shares, which they would find under the head of investments, had been transferred to the new company. Under the heading of investments—which, as usual, had been taken at cost—there appeared debentures amounting to £18,788 in the British South Africa Company. These had since been sold. The company's holding in the Exploring Land and Minerals Company

was 49,493 shares of £1 each (2s. 6d. paid) and 50,457 shares of £1 each fully paid. They had received since the date of the accounts 20,000 fully paid shares to meet the sale of their interest in the Transvaal Minerals (Limited). In regard to the entry of Mines Trust, Limited (in liquidation), the Mines Trust sold its interest to the Gold Trust, and then went into liquidation. They had sold their interest in the Mines Trust (Limited) at a profit, and there remained a small balance of £150 or £160 still to come in. Turning next to the profit and loss account, they would see that a profit had been made on sale of shares in other companies of £140,271. This, of course, included the sale to the shareholders of the shares in the British South Africa Company, to provide the dividend which was paid in February last, and also to provide for their obligation to subscribe for a certain number of debentures in the British South Africa Company. The dividends, interest, and transfer fees largely reduced the general charges of the company, which only amounted, after these deductions had been made, to about £800 a year. On the debtor side of the profit and loss account there was an entry of £103 for a subscription towards the Matabele Campaign Memorial Hospital. The board had guaranteed that sum because they did not consider it came within their province to subscribe it; but they knew it would be the wish of the Exploring Company, in their corporal capacity, to subscribe to that memorial which commemorated the death of those gallant soldiers. (Applause.) Referring again to the report, the Chairman said they would remember that during the Matabele War the British South Africa Company granted them an extension of the time during which they were to form a company which was to take over and develop the land grant till May 31, 1894. The board having in view the fact that the expenses of the Exploring Company were very heavy to the shareholders, and also with a view to the rapid distribution of the profits made, determined to increase the scope of the company to be formed. It would be remembered that they had to provide £50,000 working capital, which had to be spent during a period of three years for development of their land grant. They approached the British South Africa Company with the view of getting a modification in respect to the £50,000 they had to spend on the land grant, and, after some discussion, it was decided by the British South Africa Company that the £50,000 they had to put up might be applied to the general development of their properties throughout Mashonaland. This was a very important concession, because that enormous land grant, with the further land they possessed, which amounted in all to about 700,000 acres, required a great deal of consideration before they could decide the best means of economically working it. This point having been settled with the British South Africa Company, they decided at once to form a subsidiary company, called the Exploring Land and Minerals Company. The new company was intended to increase their scope of action, and they decided that it should be the working and spending company, in order, as soon as possible, to divide the direct profits of the Exploring Company amongst its shareholders. The capital of his company was £250,000. The Exploring Company itself provided the whole of its assets in Matabeleland and Mashonaland, and its 80,000 fully-paid Transvaal Mineral shares. Together with the £50,000 which their company had subscribed, that left a balance of 120,000 shares still in the treasury of the company, to be applied for further developments or acquisitions as the board might determine. The money required for the provisional working capital of £50,000, was to a large extent supplied by the sale of the British South Africa Company's debentures, which, as they would remember, they were under an obligation to subscribe. They thought it advisable that as many Chartered shares as possible should be retained for division among the shareholders as profits, and that they should sell the debentures, which, after all, although a very good security, had not the same chance of a big rise as the shares themselves. (Applause.) The board considered that, having transferred the indirect assets, or the assets that would require money to develop a new company, they should retain the British South Africa Company's shares and their interest in the Bechuanaland Railway, which he designated as the direct assets, for distribution, as soon as possible, amongst the shareholders. With that in view, and in consideration of the great expense involved in the maintenance of the Exploring Company, they proposed at as early a date as possible to liquidate the Exploring Company, leaving the Exploring Land and Minerals Company to develop their indirect assets. After the distribution, which they proposed to make to them to-day, of one Chartered share per share in their company, they intended to distribute the balance of the assets to the shareholders as soon as possible. (Applause.) As to their interest in the Bechuanaland Railway, they would remember that that interest was represented by the nominal sum of £2000 in £1 shares in the company—which was one-third of the whole capital, another one-third being held by the De Beers. It would be readily understood that there would be grave difficulties in distributing rateably amongst 70,000 shares, which were held by some 800 or 900 shareholders, 2000 shares in this company, and they had, therefore, decided to form a trust company, which should hold these Bechuanaland shares, and distribute by way of profit amongst the shareholders of the Exploring Company one share in the trust company for every share held in the Exploring Company. The Bechuanaland Railway, of which he had a high opinion, had been completed to Mafeking. Not only was it running, but Mr. Rhodes stated that the railway from Kimberley to Mafeking was not only paying all its expenses, but 4 per cent. in excess of those expenses. The Exploring Company's interest in this railway, as represented by their shares, was an interest in it however far that railway might be continued, and, as they were aware, the British Government and the British South Africa Company had conjointly contributed a large subsidy toward the continuation of this railway to Palapye, and to Bulawayo later on. He might point out that the railway company still held its 8000 square miles of land in the Crown colony of Bechuanaland, or 5,000,000 acres, and which he was informed was about two thirds of the whole of the land in the Crown colony. He believed that a sale of some inconsiderable portion of this land was advertised for this month at Mafeking. His object in alluding to this was principally that he wanted the shareholders to feel, as he felt, that their holding in this Bechuanaland Railway might ultimately be of the greatest value—(applause)—and, therefore, he strongly recommended that they should hold their interest as long as they could. (Hear, hear.) The report contained a full indication of the assets that the Exploring Land and Minerals Company held, and though it was not strictly within the scope of the business of the meeting to go fully into the work done since the inception of the company, he felt that, as they held practically the whole of the issued shares of that company, he should describe what had been done. The whole of their land grant had been pegged out, and by that time he believed the registration certificates had been obtained. Instructions had been given for the work to be pushed forward on the whole of the mining claims that they transferred to the company, in order to obtain the necessary certificates. In addition to this, there was considerable development work being done on the properties known as the Balmoral, Inez, and the Bartisal, in the Umtali district. This work had been done by two employés of this company — Messrs. Perry and Fleming, whose services they transferred to the Exploring Land and Minerals Company, and he desired to bear his testimony to the excellence of the work done by them. He also wished to remind them that when the Exploring Land and Minerals was formed, the Exploring Company, with the view of maintaining its chartered land and its interest in the Bechuanaland Railway, transferred to the Exploring Land and Minerals Company the whole of its obligations; so that no obligations now remained. With the Exploring Company they transferred the services of their mining engineers (Messrs. Perry and Fleming), and all their obligations in connection with their mining claims. The directors referred in the report to a considerable coal prospecting area. In view of the formation of the Exploring Land and Minerals Company, and the directors having heard of a large area which was reputed to contain coal, dispatched a mining engineer whose geological knowledge of coal strata was well known to Mashonaland—namely, Mr. Alford—to see what he could do for the new company in procuring an interest in this large coal deposit. Having arrived in the country he made arrangements with the British South Africa Company, by which it bore the whole of the expenses of the expedition. He was most successful, and discovered a large coal-bearing area beyond the Sanvate river, and he had secured the prospecting right over a piece of that area to the company. (Applause.) Altogether the area was 1500 square miles in extent, and he thought that this coal field would have a very important bearing upon the future of their holdings in the Exploring Land and Minerals Company. The Exploring Land and Minerals Company had acquired 3500 shares in the Lomagunda Development Company at a cost of £2500. The latter company held 160 claims in the Lomagunda district, 30 of which comprised the famous Ayrshire Mine, which was reputed to be the richest mine yet discovered in Mashonaland. (Applause). This was being rapidly developed, and if the shareholders carefully read the appendices to the British South Africa Company's report they would see what enormous prospects this holding in the Lomagunda Development Company had. They had also entered into a working arrangement with a company which held 50 claims on the Bartisal Reef. From information obtained, the directors believed this reef was a prolongation of the famous Panhalanga, and they acquired a half interest in those 50 claims, if they bore the cost of development, at an outlay of £1000. At present the reef was now being opened up under the direction of Mr. Alford. Since the report had been printed the negotiations there alluded to for the sale of the half interest in the Inez Reef had been completed. Altogether their half interest in the Inez Reef originally cost them £500, and they had now sold it for 30,000 £1 shares in the United Rhodesia Gold Fields (Limited). (Applause.) No doubt the shareholders would readily appreciate the fact that they still held their interest, by reason of those shares, in the Inez, and they also held an interest in over 2000 other claims throughout Mashonaland and Matabeleland. He thought this was a wise act on the part of the directors of the Exploring Land and Minerals Company, as they not only got a good profit, but also distributed their area of mining investments as much as possible. The United Rhodesia Gold Fields (Limited) had a working capital of £225,000, towards which the Exploring Land and Minerals Company contributed £25,000; so that, practically, they held at the present moment 55,000 shares in that company. Mr. Rhodes' able and characteristic speech of Friday last, couched though it was in the most moderate and careful language, must have left no doubt in the minds of the shareholders as to the enormous future and prospects of the British South Africa Company. (Applause.) Tersely summarised it amounted to this: "We want no more money; our revenue and expenditure balance; we are at absolute peace with all our neighbours; our debenture debt of £650,000 is represented by assets in the Crown colony of Bechuanaland alone by £300,000;" so you have all the mineralised value of the vast territories of the British South Africa Company to represent £350,000 of debentures and £2,000,000 of capital, or, as Mr. Rhodes graphically put it, about the value of one Rand mine. (Applause.) Mr. Rhodes jestingly alluded to some advice which he gave to a Frenchman about investing in Consols or in French Rentes; but he (the Chairman) thought that if an Anglo-Saxon had gone to Mr. Rhodes he would have said: "Invest in the British South Africa Company" (Applause.) Dr. Jameson had struck the keynote of the position when he alluded to a very early return to the shareholders of the British South Africa Company. Without indicating the amount of dividend that the British South Africa shareholders might expect, he said that in the immediate future they might expect one. This remark he emphasised by alluding to one company that had been formed, the scrip in that company alone representing 5 per cent. of the capital of the British South Africa Company. Between 70 and 80 companies were formed already for the development of Mashonaland and Matabeleland, with working capitals varying between £10,000 and £300,000, and if one company would give such a return, what would all these companies do? These companies, however, did not represent a tithe of what he (the Chairman) expected to see at work in the country within the next two years. (Applause.) This he alluded to principally to show what the ultimate value of Chartered shares must inevitably be. This was probably the last annual meeting of the Exploring Company at which he would preside, and he wished to recall the fact that this was but the fifth year since their incorporation. Originally their capital was £35,000, of which only 11,000 sovereigns represented cash. The company's capital was then increased to £75,000, and in the second year, after the tremendous boom, they had debts of £60,000 or £70,000. They were in the depths of financial despair, and, had it not been for the generous help which was accorded to the company by his colleagues, it might have been wound-up. Last year, when he addressed the shareholders, the shares were 3¾ to 3½. The directors had distributed 125 per cent. dividend out of the profits, and they proposed to distribute at once a further amount of unrealised profits which, at the present market price, was equivalent to another 200 per cent. on the capital. (Applause.) They had, therefore, distributed profits to the amount of 325 per cent. on the company's capital, leaving yet to be divided a large number of valuable shares, which he strongly advised the shareholders to keep. This was a record of which he thought the Exploring Company might be proud. (Loud applause.)

Mr. ALFRED BEIT seconded the resolution for the adoption of the report and accounts.

The CHAIRMAN, in replying to questions asked by Mr. CUTLIFFE and Mr. TERRY, said that the directors of the Exploring Land and Minerals Company were Mr. Alfred Beit, Mr. Cawston, himself, and two other gentlemen. The 120,000 shares which were still held in reserve in the Exploring Land and Minerals could be issued at any time against cash, at par, or at a premium, or be utilised for the purchase of other properties.

The motion was then put, and carried unanimously.

The CHAIRMAN proposed, and Mr. BEIT seconded, the re-election of Mr. George Cawston as a director, which was unanimously carried.

Sir GEORGE CAMPBELL, in proposing the re-election of the auditors (Messrs. Welton, Jones, and Co.), expressed his satisfaction at the splendid way in which the company had been engineered. (Applause.)

Mr. KING seconded the motion, which was carried.

A vote of thanks was accorded the Chairman and his colleagues, on the motion of Sir GEORGE CAMPBELL, seconded by Mr. JOLL, and the proceedings then terminated.

MOSMAN GOLD MINING COMPANY, LIMITED.

The works of development.—Some satisfactory results.

The first (statutory) general meeting of the shareholders of the Mosman Gold Mining Company (Limited) was held on Thursday, at the Cannon-street Hotel, the chair being occupied by Mr. BERNARD GIBSON, B.A.

The SECRETARY (Mr. Thomas Winder) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, I trust you will extend to me, in taking the chair this morning, your kind indulgence and sympathy, for it is with deep regret that I find myself in this position, seeing that it is owing to the prolonged and serious illness of our Chairman. Well, gentlemen, this is the statutory meeting of the new company—the Mosman Gold Mines (Limited)—and we have no accounts to submit to you, but probably a few details of the events that rendered reconstruction necessary will interest you. Just a year ago, your directors were able to declare a small dividend, and they hoped that it would be possible to develop your mines without reconstruction, which bears so hardly on old shareholders—and which our Chairman only agreed to with great reluctance—but on April 14 we received the first note of warning, in the following cablegram:—"Water increasing in Wyndham shaft, must erect pumps at once. Please authorise me to incur necessary outlay." At first your directors were hopeful that the water was due to the very heavy rains then prevalent in Charters Towers; but letters following from the manager, Mr. Holliman, appeared to point to the water being likely to be permanent, and to the absolute necessity of making ample provision for coping with it. May 28:—"Mines in present condition will not pay. Mosman, after searching investigation, recommends my coming to London to lay position of affairs before directors." As Mr. Mosman was coming over the directors concurred in his proposal. Both gentlemen arrived in London early in August, and, after earnest consultations, your directors resolved to recommend the shareholders to agree to liquidation and the reconstruction. Meetings were held 29th August and 20th September, and, as shareholders are aware, your directors' plans and proposals were unanimously adopted. The reconstruction was carried through very promptly, for on 30th October, just two months after the first meeting, the directors of this company allotted 162,567 shares to 670 applicants. Anxious that no old shareholder should be shut out, a special reminder was sent, and 12,000 more shares were allotted; the balance—some 8000 shares—being allotted at various premiums; the lowest premium obtaining an allotment being 1s. 6d. This satisfactory result was largely due to Mr. Mosman showing his faith in the mines by retaining the large holding of about 40,000 shares, which he has held throughout. Now, the two main objects for which the reconstruction was carried out were.—1. To sink the Wyndham shaft to a much deeper level, in order to develop the Eastward Ho and Rainbow Block leases.—2. To sink a shaft for the Peabody reef on the North Australian Block. The necessary pumps, pipes, and boiler were ordered directly after the confirmatory meeting. Mr. Holliman has arrived at the mine, and will at once commence erecting the machinery, which is on the ground, and, as soon as possible, clear the lower workings from water and recommence sinking the Wyndham shaft. You will be glad to hear that the water has subsided enough to allow us to resume driving the No. 13 level north towards the Day Dawn P.C. workings. I may here mention that to keep some of our most experienced miners employed when driven out of the lower workings by the rush of water, we took a block of ground on tribute from the Rainbow Company, just in the corner—*vide* plan—where it would be years before they could stope, whereas we could extend our levels and raise stone at once. The arrangement has been mutually satisfactory, for on December 13 we crushed from this Rainbow tribute 112 tons for 319 ounces, nearly 3 ounces per ton, and on January 12 57 tons for 254 ounces, nearly 4½ ounces per ton. Now, as to our second object, arrangements have been made for readjusting the North Australian lease by taking up ground that will enable the company to work the Peabody reef advantageously, and abandon a portion of the old lease, which is useless for this purpose. We are moving machinery from our old Mystery lease, and immediately it is erected we shall commence cutting down an existing shaft, and sinking on the Peabody reef. Amongst subsidiary objects, I may mention the Talisman reef supposed to underlie a great portion of the Rainbow block lease; if we are successful in our two main objects we must certainly sink for this Talisman reef, which yielded some very good results when it was worked some years ago. In conclusion, gentlemen, I think we are justified in hoping that the Mosman Gold Mines will share in the prosperity of the Charters Towers gold field, whose future—whose permanent future—never looked so bright and assured. In the Rainbow block we have practically a virgin mine, and I trust your sorely-tried patience will reap a golden harvest therefrom. If I can give any further information to shareholders, or answer any questions, I shall be pleased to do so to the best of my ability.

Mr. FERGUSSON asked whether there were any old workings in the neighbourhood of the mine, for he could hardly believe that such a large quantity of water could come from the surface alone.

The CHAIRMAN replied that there was no doubt whatever that a large quantity of the water did come from the old workings.

Mr. SUTTON said he believed that in the old company Mr. Mosman had been restricted from selling his 40,000 shares upon the market, and he wished to know whether the same arrangement would apply in the new company.

The SECRETARY replied that there was no restriction put upon Mr. Mosman, but Mr. Mosman only held his shares on his faith in the ultimate success of the company.

Mr. SUTTON said he should have been glad to have doubled his holding in the company had there been an opportunity, for he had the greatest faith in the mine and in Charters Towers.

The CHAIRMAN, in conclusion, suggested that the shareholders should pass a vote of sympathy with Mr. Hopkins in the illness from which he is suffering, and which had deprived the board of the assistance and counsel of a valuable colleague.

Mr. FERGUSSON said he had wished to propose such a vote. The company was peculiarly fortunate in having such a Chairman, and he was quite sure everyone present would be heartily in favour of the vote.

Mr. HUME seconded the vote, which was carried unanimously.

A vote of thanks to the Chairman concluded the proceedings.

GOLD ESTATES (TRANSVAAL) COMPANY, LIMITED.

The present position of the company.—South African developments.

An ordinary general meeting of the shareholders of the Gold Estates (Transvaal) Company (Limited) was held on Monday, at the Cannon-street Hotel, the chair being occupied by Mr. ALEXANDER DAVIDSON.

The SECRETARY (Mr. Arthur Fell) read the notice convening the meeting.

The CHAIRMAN said—Gentlemen, in laying our report and accounts before you this year, we are a little later than usual on account of the delay on the other side in carrying through the transfer of the Nooitgedacht property, and completing the registration at Pretoria of the same. Unless that had been completed the new shares of this company could not have been allotted to the shareholders of the Nooitgedacht Company, who consequently could not have attended this meeting. In the remarks I have to make regarding the concerns of the company, I shall first refer to the Nooitgedacht property as being at present the most prominent. It is desirable, in the opinion of the directors, to state to you at once the policy they recommend in this quarter, and in view of the fact that this company is chiefly a land or estate company, with only a small amount of working capital, that policy is to sell the Nooitgedacht Mine—not necessarily in haste—but to sell it as soon as a proper price can be obtained for it. With this view we instructed our manager, Mr. Hassall, to take offers as soon as he took possession, and after a considerable amount of work on his part, the result was the agreement referred to in the report. I should like here to acknowledge the opportune services of Mr. Raw, who happened to be on the spot, and gave his valuable aid in settling the ultimate terms of the agreement. We are happy to say that we believe the people to whom we have given the option of purchase, and who are now working the mine on tribute, are of good standing, and in no way likely to fail in adhering to the terms of the agreement, which provide for the proper working of the mine, and maintenance in good order of the buildings and machinery. I I am, of course, for obvious reasons, unable to disclose at present the terms of the tribute and option, but I may say that they are fair and reasonable. While the option is running, this company's interests are being looked after by a representative resident on the property, Mr. Nicolls, who sends regular reports to us. Pending the result of the agreement there is nothing further to report to you, and we trust that the result, when it is arrived at, will be satisfactory to all of us. The other properties of the company are, in the first place, the blocks of farms in the Barberton district and on the Swazi border. On one of these, S'Gravenhage, as the shareholders are aware, several gold reefs of a promising character were found as the result of systematic prospecting carried out two or three years ago. On one of these reefs a considerable amount of development was performed, and a trial crushing made with satisfactory results. As yet, however, the tide of prosperity has not returned to the Barberton district, although it seems nearer than it did, and the directors consider that until things begin to move there it would be

wasting the company's resources fruitlessly to attempt a disposal or flotation of this S'Gravenhage property. The other farms there have so far not been found gold-bearing, although it is quite possible they may be so, but they are stated by the manager to be exceedingly well-situated, well-watered, good grazing farms, and to be rising in value year by year as the country gets more settled upon. The same remarks apply in a lesser degree to the farms of the company on the Swazi border, in the neighbourhood of the Pigg's Peak property. Turning next to the company's properties situated in the western part of the Zoutpansberg district, and in the Waterberg district, a portion of which is referred to in the report, there seems to be a little more prospect of an early movement. The railway projected to go in that direction is expected to be commenced in the course of the present year, while the recent gold discovery at Eersteling, in our neighbourhood, will draw attention to the Zoutpansberg Gold Field, in which some of our properties are centrally situated. When this company was formed, it appeared as if the districts in which its properties are situated were about to make immediate and rapid progress, but the discovery and development of the Witwatersrandt very quickly drew away almost all interest, energy, and capital to that region, and other discoveries and developments in the Transvaal, Mashonaland, Matabeleland, &c., have continued to divert and absorb attention. We have, therefore, to recognise that in regard to most of our lands we must wait the natural growth of the country, endeavouring meanwhile to preserve our interests intact, with as much economy as we possibly can, and this your directors have continually endeavoured to do. On the other hand, they have felt very strongly an intense dislike to retaining their position here if they are to do what I have said and nothing more, and, as you are aware, they declared to you in last year's report, at the last general meeting, a policy (which met with your approval) of actively employing in other quarters a portion of the company's capital. The desirability, however, arose immediately thereafter of taking over the Nooitgedacht Company, which was also done with your approval, but with the necessary consequence, until that important affair is concluded, of tying the directors' hands from embarking in other ventures, except on a very small scale. Although small and unimportant, I may say, however, that such as they are, these have turned out well. As soon as our hands are free we purpose to extend these efforts to nurse the company gradually into a paying one. We have been saddled with a large amount of property which must apparently remain unproductive for a longer time than we expected when we undertook the direction of your affairs, and we see no other way of getting along than what we have indicated to you. On the other hand, if there is to be no "getting along," we feel that we should not be justified in asking your support. The amalgamation with other companies is one way of "getting along," and the amalgamation with the Nooitgedacht Company is an instance in point. If any other union can be discovered that will appear to be for your good we should seize upon it at once, and lay it before you, whether it be our absorbing another company, or another company absorbing us. In either case the directors would consider it as coming within the scope of their policy of striving to get along, provided always that the *quid pro quo* was satisfactory and advantageous. With these general remarks on our policy, I will conclude by making a few observations on the accounts. Turning to the balance-sheet, you will see that there is a change in the nominal amount of capital under the new scheme, as laid before you at the last general meeting; but the actual capital in shares is not larger, though the amount is increased by the 2s. 6d. call which was made. There is still a considerable sum in arrear. The reserve fund remains the same as before. The loan to the Nooitgedacht Company, which stood last year at £2746, stands this year at £7746. Sundry shares in other companies we have reduced—having disposed of some of them from £5120 to £3052. The other items are small, with the exception of a considerably heavier sum for law charges—owing to the law we had in Africa in re-registering the company. The Chairman concluded by moving the adoption of the report and accounts.

Mr. J. J. HAMILTON seconded the motion for the adoption of the report and accounts.

The retiring director (Mr. Davidson) having been re-elected, and the auditor (Mr. J. B. Laurie) reappointed, the proceedings terminated with a vote of thanks to the Chairman and directors.

EMERALD GOLD MINING COMPANY, LIMITED.

Profits already accumulating.—Mine opening up well.

The first (statutory) general meeting of the shareholders of the Emerald Gold Mining Company (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Mr. PYKE.

The SECRETARY read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, it is perhaps, scarcely necessary to say you have been invited to attend here to-day in compliance with the Joint Stock Companies Act, which necessitates a meeting of the shareholders be held within four months from the date of registration, which took place on September 26, and letters of allotment were sent out on October 16. Shortly after Mr. Stanley, one of the vendor directors, left for Geraldton to complete the transfer of the property at Yalgoo, Murchison; but, on his arrival there on November 16 he met with great difficulty in obtaining possession because the prospectors and original vendors evidently considered they had made a bad bargain owing to the improvement that had taken place in the mine since the signing of the agreement. They also claimed the gold won between June 11 and 30. On this point the original agreement is quite clear, but, rather than allow the contract to fall through, Mr. Stanley assumed the responsibility of the claim, which, however, in no way affected this company. On the 30th November we received a telegram that the mine was in our possession, and had been legally transferred. We own a five stamp battery and a Huntington mill—the latter had broken down, but this is being repaired and should be working again soon. Thus the battery alone has been in use for some considerable time; this has not been doing its work in a satisfactory manner, which is evidenced by the large amount of gold left unextracted in the tailings. These tailings are, of course, kept on the ground for eventual retreatment, as soon as we are properly settled at work, but even with all these drawbacks we have the satisfactory information that 2049 ounces of gold, valued at about £8000, have been extracted since the date (June 11) on which we were to take over the proceeds of the mine. This gold has been deposited in the Union Bank of Australia, and we estimate the cost of mining, milling, and other expenses, at about £2200, leaving a margin of profit of about £5800. Our endeavour will now be directed to improving the returns from the mine in every way. Mr. Stanley and our agent on the spot have just appointed a new manager of considerable experience, and we await his advice in regard to the erection of additional stamps and more efficient machinery. We have ordered full samples of the tailings to be shipped here which we intend to submit to the best processes we can command in this country, and then decide whether a change is required in dealing with the ore—which does not seem to be a difficult one, and probably only requires careful treatment—when returns should largely improve. As regards the mine itself you were told in the prospectus that we possess a well-defined reef—an accumulation called a quarry—and that, besides, the whole surface of the property is strewn with what appears to be the detritus of the outcrop of the reef caused by the weather through long ages. This stuff lies to the depth of a couple of feet or more, all yielding gold—in fact it is from this source that our chief supplies have hitherto been drawn. On prosecuting researches on the reef, numerous fissures have been discovered underground, all showing gold, and it is apparent that we have large resources within sight. Mr. Stanley and Mr. Campbell (of Messrs. Burns, Philp, and Co., Geraldton), in their report on the Emerald Mine, state: "It is interesting to note that when the boiler was overhauled a short while ago, after being in use for seven months, only some 2½ to 3 lbs. of dirt were taken out, thus showing the excellent properties of the water, and this record is unequalled on any field in Western Australia. The manager estimates the quantity of tailing at 500 to 600 tons, including about 200 tons from other claims, which we crushed, and which passes into our possession. We now refer to the various shafts we descended and carefully inspected:—The well styled No. 1 is 50 feet deep, and has 18 feet of water, which gives an ample supply, especially with the return pump, and in this shaft are to be seen two leaders about 2 feet thick, running north-east and south-west, showing rich stone. Shafts 2 and 3, which are close together, are 18 feet deep, and are connected at the bottom with a drive. In shaft No. 2 a drive has been made for 25 feet in a south-east direction, showing splendid stone, 2 feet, and very rich in gold, quite as rich, in fact, as any foundn on the property. In shaft No. 3 a drive has been made for 26 feet to the north, and a good stone is here found, and is now being raised. The formation, however, in Nos. 1, 2, and 3, is peculiar and much broken about, and the question arises if they will prove to be of the quarries formation, and that the true reef will be found between these two shafts and the present quarry at a lower depth, where they would all join. Shaft No. 4 is down 29 feet, and discloses a fine body of stone carrying good gold. The reef makes from 18 inches to 4 feet as it goes down, dipping at first to the south-east, and then going straight at the bottom. Speaking generally, it is difficult to form any accurate opinion, as the formation throughout the ground, as far as it can be seen, is peculiar, but there is no question about the gold. It was not a case of looking for it—it could be seen everywhere. We intend to have work begun at once to prove the reef, for so far it has not been carried out with any definite ides. At present the mill is treating the surface stuff, intermixed with stone in small quantities from the shafts, and the result is a return of from 3 to 4 ounces. So far the quantity treated scarcely shows on the surface, the amount there being so large—thousands of tons, we estimate. One good indication of the high local reputation of the mine we notice in this fact—that nearly all the men working on it, and many outsiders, have already bought shares from the original prospectors.—Quarries. From surface indications and outcrops of quartz it would appear as if the quarry continues for 110 feet to the south-west beyond the point at which it has been worked, and also after working at a lower level fresh stone will be found. We are now taking steps to make exhaustive tests by running the stampers for 24 hours on stone taken from each shaft, and also from different parts of the surface separately; and these will then show what to expect for the future. We have no hesitation in saying that the new company has acquired a most valuable property; it will prove more than profitable to all concerned." In connection with the completion of the purchase, the directors are glad to take this early opportunity of recognising the efficient services rendered by Mr. Stanley and by our solicitors in Western Australia—Messrs. Parker, Parker, and Co.—and also by Mr. Campbell, who, as the manager at Geraldton, of Messrs. Burns, Philp, and Co., was, Mr. Stanley reports, of great service to him in many ways. Mr. Stanley speaks in the highest terms of Mr. Campbell, and it will probably be a satisfaction to the shareholders, as it is to the board, to feel that the company has the benefit of the services of this gentleman, who is so close to the mine, and who they feel can be relied upon to protect and advance the interests of the company in every possible way. At one time the directors contemplated paying a dividend from the proceeds of the 850 ounces of gold, which was included in the purchase of the mine; but, on taking legal advice on the matter, they were informed that this asset could only be applied in reduction of capital, or carried to a reserve. We are, however, hopeful of being able to declare a dividend within six months from the time of registration. Although unable to declare a dividend on this occasion, it will, doubtless, be satisfactory to the shareholders to know that our available resources in cash amount to about £10,000, so that we stand to-day in the happy position of having our mine and machinery paid for, our original working capital of £5000 intact, and an additional amount of about £5000 in hand, a result but few mines in Western Australia have been able to show in so short a space of time.

Mr. DUTTON, at the instance of the CHAIRMAN, explained that the disability of the board to declare a dividend at that meeting, was due to the fact that the Articles precluded the declaration of a dividend from profits made at a time prior to the registration of the company. The profits made at that time, would, therefore, go to swell the working capital.

A hearty vote of thanks to the directors, proposed by Mr. DONAGAN, and suitably acknowledged by the CHAIRMAN, terminated the proceedings.

TRANSVAAL GOLD EXPLORATION AND LAND COMPANY, LIMITED.

Dividend of 5 per cent.—The prospect of quarterly dividends.

The adjourned ninth ordinary general meeting of the shareholders of this company was held at Cannon-street, on Thursday, Mr. NICOL BROWN (the Chairman) presided.

The SECRETARY (Mr. C. E. Wells) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen, it is now my duty to say a few words about the balance-sheet. On the debit side you will observe the issue of 10,000 shares. These were issued at a premium; the par value of £10,000 has been added to the capital account, and the profit on the 10,000 shares, amounting to £7881 3s., has been added to the reserve account, which now stands at £13,252 17s. 9d. Two thousand of these shares were issued prior to July, 1894, and bore dividend on that date. The sundry creditors are heavier this year than last by £1933 14s. 2d. On the credit side the farms' purchase account stands at the same value as before. The increase in new works, buildings, and machinery is £15,505 19s. 6d. The details of this are so fully given on pages 12, 13, 14, and 15 of the report that I need not further dwell upon them. The new mill has worked well, notwithstanding the preliminary trouble in starting it. The electric plant is also working well, and when things get into regular working order I have no doubt we shall get very good results. The cyanide plant is, however, not yet completed, and until it is in operation we shall not reap the full benefit of the new installation. I may say that it is within measurable distance of being in working order. The depreciation on the old plant is £2484 18s. 11d., and, considering the constant wear and tear on plant like ours, this is none too heavy. There is a slight increase in the movable plant. The general stores are larger. There was a considerable amount of plant in transit, which has been included in the stores account at September 30. The recent tailings account is somewhat decreased. The tree-planting account has been increased by £658 12s. 8d. You will observe the new item, "Removal of overburden account." This is a very small sum just now, but it is the beginning of a large operation for the purpose of uncovering the ore at the Theta Mine. As you know, it is by no means a new operation at Theta; but this is on a much more extended scale than anything that has ever been tried there before. There will be a large outlay of money before the ore is reached, but when it is reached we shall then get a return of all the money expended on the removal of the overburden, and a large profit besides. In addition to this, it will open up so much ore at the back of the present measured reserves that we may expect our future ore reserves will be very much increased thereby. The increase of cash in hand and investments over last year arises principally from the profit made on the 10,000 shares sold, as represented on the other side of the balance-sheet by the reserve account. This year we have spent in working costs £10,795 5s. 4d. more than in the previous year. Of this, £4491 6s. 11d. has been spent on the mine, and is contained in the increased assets of the ore in hand. The sum of £5503 8s. 3d. more than in the previous year has been spent on the extraction of gold by cyanide, owing to the process having been at work during the whole of the year, as against the two months and a half in which it was working during the previous year. The general charges at the mine are increased by £1259 17s. 7d. Of this increase, £679 0s. 1d. is due to the increased forwarding charges on the larger output of bullion, and on exchange (on Bank of Africa and the National Bank of the South African Republic) of our drafts. The increase on salaries is £263 8s. 4d., and the balance on some other smaller charges. The gold produce is increased this year by £30,731 10s. 2d.; last year produced 11,315 ounces, of an average value of £3 9s. 2d. per ounce, and this year 24,676 ounces, of an average value of £2 16s. 8d. per ounce. The cause of the lowness of the value has already been fully explained, and in future the manager has been asked to cable its cash value, which we shall continue to publish monthly. The incidental receipts at the mines show a falling off as compared with last year. This arises principally from the smaller amount received for prospecting leases, and also in some measure from the withdrawal of the diggers' licenses and the consequent non-existence of the profit from gold purchased. Ground and house rents show a satisfactory increase. The table of mining costs is so fully given in the report that little farther comment need be made upon them. There is a slight increase in the rate per ton of mining cost and transport, and a decrease in the rate per ton of battery work and pan treatment. The cyanide cost is still very high, and the details of it are shown in the general manager's report. The amount of prospecting and development work done during the 12 months is much in excess of the previous year. The figures are:—Tunnels driven, 19,775 feet; shafts sunk, 965 feet; trenches cut, 21,576 feet. The increase in tunnel works is 9060 feet; shafts, 135 feet; trenches, 9761 feet. This is nearly double the work all through. The general result of this is that the reserve of ore, which stood at September 30, 1893, as 51,000 tons, now stands as 87,000 tons measured. Of course, there is a great deal of ore behind that, and I want to emphasise the fact that the 87,000 tons is a measured figure. We shall now consider for a moment or two the total rate of extraction of gold from our ores, reckoned as pure gold and not as bullion, because this is the only stable basis on which comparisons of extraction can be made. The amount of gold recovered from the ore by the various processes used has been gradually and steadily increasing. The figures taken overhead are as follow:—In the year 1890-91 we recovered nearly 40 per cent. of the whole contents; in the year 1891-92 we recovered nearly 45 per cent.; in the year 1892-93 we recovered nearly 51 per cent.; but last year, with the aid of the cyanide process, the percentage recovered was 71·21 per cent. I do not think that we are likely to go back from these figures, but rather to continue to improve upon them. I have to point out that the total weight of ore extracted from the mine, or the total weight of ore crushed by a battery, or the total produce of bullion per month, are apt to be misleading factors, if taken alone, in forming a comparative estimate of the character of the work done. That is to say, you may have a large amount of ore taken out of the mine carrying gold, but unless you can ascertain the rate per cent. of the gold extracted from the ore, you do not know—you cannot reckon—the quality of the work done by your men, or the value of the processes used. Owing to the uncertain character of the present waterrace, and to the probable need of more crushing power in the near future, the directors have for a long time been considering with their engineers the best method of increasing their water power. They have just received (by last mail) the final report from the manager at the mines on this matter, and the board will lose no time in deciding as to how this additional power can best be obtained. There is little doubt we have a large bed of ore to work upon, and, as soon as we secure the power of working, we shall look forward to an increase in the machinery for obtaining the gold. Negotiations still continue with a view to leasing Jubilee Hill, and I am happy to be in a position to inform you that offers for other portions of the property are now under the consideration of your directors. (Applause.) You will observe that there is a balance of £23,719 carried forward to the credit of profit and loss at end of last year's account, and from this you have already received dividend No. 7, which amounts to £13,000, leaving £10,719 still to be dealt with. In looking into the profits for the three months, October to December last, we find the value of bullion obtained from October to December was £17,600; expenses for same period, £8880; showing a profit of £8720. So that we propose to pay a dividend at the end of March of 5 per cent. You may reckon that 2½ per cent. is from the available balance carried over from last year, and 2½ per cent is part of the earnings of the first quarter of our new financial year. The board intends to pay this in March, and trusts this may be the inauguration of the quarterly dividends Mr. Farmer foreshadowed to you at our last meeting. (Applause.) I have now to propose: "That the directors' report, and the accounts to September 30 last annexed thereto, be and are hereby, received and adopted."

Major-General ALEXANDER CUNNINGHAM BRUCE, C.B., seconded the motion.

Mr. SCOTT called attention to a paragraph in the general manager's report, under the heading of "Quarry," which stated—"This inventory shows an increase in weight of 5466 tons, and in gold contents of 2171 ounces 9 dwts. The weights and values set down are only estimates, but I have every confidence they will be found in actual working to come quite up to the figures given." He thought this paragraph required explanation, because apparently the quantity stated did not yield 9 dwts. per ton. Knowing, as he did, the extraordinary richness of the ore, it seemed to him rather a low estimate. He had made a calculation which showed that the mill had crushed 7719 tons, the yield being 3955 ounces. This was equivalent to 10 24 dwts. per ton, and a yield of gold of £1 15s. 9d. per ton. The pans had treated 2184 tons, giving a yield of 11,439 ounces, which was equivalent to 81 30 dwts., of a value of £14 12s. 9d. per ton. The total crushing from the mill and pans was 10,533 tons, giving a yield of 15,394 ounces, or 29·22 dwts. per ton, being at the rate of £5 2s. 3d. per ton. The highest yield of any mine published in a monthly analysis of the gold produced in the Witwatersrand district was that of the Nigel—namely, 21·42 dwts., as against 29·22 dwts. produced by this company, the values per ton respectively being £3 19s. 2d. and £5 2s. 3d. (Applause.)

The CHAIRMAN, in reply, said the mill was used for the poorer class of ore, and the pans for the richer class, so that for purposes of comparison it would be wrong to assume that the whole of the ore averaged 29 dwts. If they worked on a large scale, as they intended to do when they stripped the Theta Mine, he was hopeful that they would get a much larger number of rich patches, but it was the large volume of the poorer ore which would give them the main chance of making a profit. In the past they had got a considerable amount of rich ore, and he saw no reason why they should not get rich ore in the future. The increased crushing power, together with the reduction in the transport expenses, would enable them to work very poor ore at a profit. As to the value of the gold, the ore had been taken at the cost of extraction, and the profits would come into the present year.

Mr. SCOTT said he had called attention to the matter, because he thought the weights and values of the ore would come to three times what was stated by the manager.

The CHAIRMAN: I quite admit that they will come to a great deal more; that just shows the carefulness of the valuation. (Applause).

The resolution was then carried unanimously.

An extraordinary general meeting was then held, when the following resolutions, altering the Articles of Association of the company, which were passed at the ordinary general meeting, held on December 31, 1894, were confirmed:—

1. That Article 3 be altered by inserting in the second line thereof, after the words "purchase of," the words "or lent upon the security of the"

2. That the following words be added at the end of Article 12:—"but no call shall exceed one-fifth on the nominal amount of a share, and two successive calls shall not be made payable at a less interval than two calendar months."

3. That Article 15 be altered, by inserting in the eighth line thereof, after the word "may," the words "pay interest at such rate," and by striking out all words of the said Article after the words "shall agree" in the ninth line thereof down to, and including the words "same shares" in the twentieth line thereof.

4. That the following Article be, and the same his hereby substituted for

Article 17, which is hereby repealed:—"The instrument of transfer of a share shall be in the common form, or in such other form as the directors may from time to time approve."

5. That Article 32 be altered by inserting in the second line thereof, after the word "shares,' the words "not fully paid up," and striking out the words "and stock" in the same line.

6. That Articles 33 and 35 be altered by striking out the words "or stock" wherever they occur in the said Articles.

7. That Article 43 be altered by inserting in the first line thereof after the word "may" the words "by special resolution"

8. That Article 44 be altered by adding at the end thereof the following words:—"But so that the moneys at any one time owing shall not without the sanction of the company in general meeting exceed £300,000."

9. That Articles 47 and 75 be and the same are hereby repealed.

10. That Article 82 be and the same is hereby repealed, and that the following Article be substituted therefor:—"82. The qualification of a director shall be the holding of shares of the company to the nominal amount of £500."

11. That Article 83 sub-section (c) be altered by striking out in the second and third lines thereof, the words "or do not acquire the same within one month after election or appointment."

12. That Articles 91 and 92 be and the same are hereby repealed.

13. That Article 93 be altered by striking out all words of the said Article after the words in the twelfth line thereof "had not been made."

14. That Article 114 be altered by substituting the word "six" for the word "three" in the fifth line thereof.

15 That Article 115 be altered by inserting in the second line thereof after the word "shall" the words "seven days previous to the ordinary meeting in every year."

On the motion of Mr. SCOTT, a vote of thanks was enthusiastically accorded Mr. Nicol Brown.

GOLD FIELDS OF MYSORE, LIMITED.

An improvement in depth.—Captain Rowe reports encouragingly.

The eighth ordinary general meeting of the Gold Fields of Mysore (Limited), was held on Thursday, at Cannon-street Hotel, E.C., Captain W. BELL MCTAGGART presiding.

The SECRETARY (Mr. John Garland) read the notice convening the meeting.

The CHAIRMAN, at the outset, explained the cause of the absence of Lord Ribblesdale (the Chairman of the company) and Sir Charles Tennant. It might, he said, be within the knowledge of those present that last Monday Lady Tennant, the loved and devoted wife of Sir Charles, and the mother of Lady Ribblesdale, passed away, her funeral being fixed for that (Thursday) afternoon, and he thought it would be a graceful act on the part of the shareholders if, before the conclusion of the meeting, they were to pass a vote of sympathy and condolence with Sir Charles and his family. Passing on to the report, the Chairman said that that document, combined with the statement which Mr. John Taylor, their manager, would make to them, would give the shareholders most ample information concerning, not only the financial position of the business, but also the actual workings and prospects of the property. The balance-sheet, which was more detailed than hitherto, showed amongst the assets the fully-paid shares which they held in other companies. These were entered at the market price, and totalled £62,689; but there was an estimated depreciation on those shares of some £14,000. They might ask why they continued to show in the balance-sheet an asset of £62,000, when its actual value was £14,000 less. Well, the reason was clear. In making up a balance-sheet they must have a fixed figure—they could not have a fluctuating one—and, therefore, it had been considered advisable in the interests of everybody that these shares should remain as an asset at the price at which they were taken over, until they might be realised. When they were turned into actual cash their value would be what they realised. It would be impossible to pursue any other policy in this respect; for he would point out that this depreciation of £14,000 was calculated when the accounts were audited, whereas the value to-day showed a slight increase, the depreciation being less by about £2000 than at that time. Therefore, with assets of such a fluctuating nature, it was necessary that the full value should be given, subject to such notes as the auditors might like to make at the foot of the balance-sheet. Then there was an item of £10,000, being purchase consideration for sale of under-lease to the South-East Mysore Gold Company. It might occur to some that £10,000 was a very small matter; but that, again, was a purely nominal figure. They sold the land in question to the South-East Mysore Company, which had been reconstructed, and was now called the Yerrakonda Gold Mining Company, for a quarter of the whole value of that undertaking; so that this asset did not represent £10,000 solely, but actually a fourth of all the profits the Yerrakonda would ever make. That company was now well equipped with machinery of all kinds; they had a most promising reef, and, what was still more important, they had ample working capital. In these circumstances, it would not be a strange thing in the history of Mysore mines if they should distribute as dividends in a year £40,000, or even three times that amount. Were a modicum of success attained by the Yerrakonda Company, what would be the value of this £10,000 entered on the credit side of the balance-sheet? In that case the actual value of the shares might be measured by the sum of even £100,000 From the profit and loss account, it would seem that the profit for the year, added to the balance carried forward, amounted to £5575, and after the balance carried to suspense account, it left about £3000 to credit. It was true that this was not sufficient to enable them to declare a dividend, and a company that did not declare a dividend was, perhaps, in a position to be murmured at; but he thought that if they investigated the matter a little further, they would see that, although a dividend might not be declarable this year, the prospects were very encouraging. In regard to the past, he would simply mention that the company was registered in July, 1886, and during that time they had declared in dividends £241,000 or £1 2s. for every £1 share, giving an average dividend for the eight years of 13¾ per cent. per annum. In addition, after having done that, they were not in an exhausted position. They now held 7000 acres of land, in which new reefs were being discovered and opened up daily—reefs which, when they acquired this property, were unknown and unheard of, and which were no small matter. Had this property been in Western Australia they would be able to locate upon it 100 or 150 companies; but in India that was not the fashion. They had been in the habit of selling 240 and 250 acres to another company, whereas in Western Australia 10 or 12 acres only were sold. In view of the fact that they were only a land company until the directors changed their policy some time ago, and considering the tremendous depression that had existed in all kinds of property, it was a very good record to have made a profit of 13¾ per cent. for eight years. There was an old saying that they could not eat their cake and have it; but in this company they had eaten their cake, and still had a large slice to cut up in future. As he had stated, they were originally a land company; but bad times came, and they asked the shareholders to provide further capital to the amount of £55,000 to become a mining company, and he thought they would agree with him that their operations in that direction had proved very successful. In addition to the profits they would get from mining, they would also derive great benefit from the sales of land from time to time. By developing the deep levels on some portion of their property they would be able to sell their land at a much higher figure than if they had merely a run of reefs which had not been proved. The Chairman then read the following cablegram from the superintendent (Captain Rowe), dated the 23rd inst.:—

South shaft 470 north 1 foot wide, assaying 1 ounce 5 dwts. per ton. South 2 feet wide, assaying 15 dwts. per ton. 385 north 1 foot wide, assaying 18 dwts. per ton. South 4 feet wide, assaying 1 ounce 2 dwts. per ton.—West Balaghat. No. 1 shaft. 117 north 19 inches wide, assaying 14 dwts. per ton South 19 inches wide, assaying 1 ounce 2 dwts. per ton.—No. 2, 135 north 1 foot 3 inches wide, assaying 1 ounce 6 dwts. per ton. South 1 foot wide, assaying 16 dwts. per ton. No. 3 2 feet wide, assaying 12 dwts. per ton. 117 north 1 foot 3 inches wide, assaying 19 dwts. per ton. South 19 inches wide, assaying 18 dwts. per ton.—No. 4, 148 north 6 inches wide, assaying 1 ounce 3 dwts. per ton.—Road Block. No. 3 shaft north. No. 1 south drive 2 feet wide, assaying 1 ounce 4 dwts. per ton. North shaft south 6 inches wide, assaying 15 dwts. per ton.

Continuing, the Chairman said that the cablegram was very satisfactory, considering that they were only, as yet, in shallow levels. Within 100 feet of the surface they had actually come upon payable lodes, which were very seldom found at so small a distance down. No doubt as greater depths were reached the lodes would prove both wider and richer. In conclusion, the Chairman referred with regret to the death of the Maharajah of Mysore, and to the loss thereby sustained by his fellow-countrymen, and, in fact, by all who had business connections with that district, and resumed his seat after moving the adoption of the report and accounts. (Applause.)

Major-General G. DE LA POER BERESFORD seconded the motion.

Mr. JOHN TAYLOR, having sympathetically referred to the sad bereavement which had befallen Sir Charles Tennant and his family, said the most important work they had on hand, because it was by far the deepest at present, was the south shaft on the Oriental Reef in the Golconda block. This shaft was sunk some little time ago to a depth of 470 feet, and levels had been driven at 470 feet and above. The 470 feet level had been driven south 173 feet, where they had a reef from 1 foot to 4 feet wide all the way, with assays never less than ½ ounce up to 1 ounce 18 dwts. The cablegram read showed that the reef in the end was 2 feet wide, worth ¾ ounce per ton. The 470 feet level had been driven north of south shaft 155 feet, the reef there being about the same size and assaying the same, but the cablegram informed them that the reef was 1 foot wide, assaying 1½ ounces. The level above 380 feet south of south shaft had been driven in the year 260 feet. The reef there had been from 1 foot 6 inches up to 4 feet wide, assaying from 12 dwt. to 1 ounce 13 dwts. The cablegram said the reef in the end—their most southern point, and, therefore, important—was considerably wider than in many places, being 4 feet wide, and worth 1 ounce 2 dwts. The 380 feet level north of south shaft had been driven 252 feet. The reef there had not been quite so wide, being 6 inches to 1 foot 6 inches, but had given higher assays, which varied from 6 dwts. to 2 ounces 16 dwts. The forebreast of the level was now 1 foot wide, worth 18 dwts. They thus had productive ground in the bottom level, 328 feet long, continuously gold-bearing, and in the 380 feet level 512 feet long. It would naturally be supposed that they wanted to see below that point, and preparations were almost completed for the sinking of the south shaft below the 470 feet level. They had already opened up good ground, which should give steady returns directly the mill got to work, which they trusted would be before very long. They had there four levels in productive ground, and the reef showed a vast improvement upon what was seen in the levels above. They had an additional reason for looking with confidence to the northern works, particularly in this mine, because the three levels at middle shaft a little to the north—108, 175, and 235—were all persistently bearing; and, therefore, there should be a continuance of the productive ground. They hoped to see what they had seen elsewhere—namely, that the ground would be better at the increased depth than at the shallower levels. Captain Rowe mentioned that the 380 feet and 470 feet levels had proved the reef an auriferous one, of a highly favourable character, and one which should prove productive in depth. The Captain's confidence in the future of that particular shaft was shown by his recommendation that a new vertical shaft should be sunk to the north and west of the present workings in this mine. The speaker then dealt in some detail with the developments which had taken place in the West Balaghat block, and stated that the whole of the length from the northern point to the southern—1993 feet—was in gold-bearing ground, which should pay very well when it came to be laid open for stoping. The levels themselves had been driven all the 1993 feet; they had opened out 720 feet, and he thought they would very soon want to sink the new vertical shaft which Captain Rowe deemed necessary for the mine. Mr. Taylor also referred to the prospects of the Road Block and the Ajjapalli Block, and, in conclusion, said the list of shares held by the company in other mines was now becoming a long one, and that although the prosperity which had attended their working had not been altogether such as they could desire, he thought that in almost every case the outlook was brighter than it had been. (Applause.)

In reply to Mr. GILBERT ELLIOT, Mr. TAYLOR said he regretted the stamps had not started work yet, but they were expecting that they would be in a very short time. Owing to the cyanide process, great efforts had been made to push forward its trial; but it had been delayed in consequence of the illness of Mr. Ellis, who was sent out by the MacArthur-Forrest Company. Work, however, had now been started, and they had every reason to believe the process would be successful as regards the extraction of gold. They were anxious to know the expense of obtaining the gold, and they were expecting to hear something definite on that subject very shortly.

The motion for the adoption of the report and accounts was then put, and carried unanimously.

Captain McTaggart and Mr. Robert Taylor (the retiring directors), and Messrs. Cooper Brothers and Co. (the auditors) were re-elected.

On the motion of Mr. JEPPS, seconded by Mr. GILBERT ELLIOT, a vote of condolence with Sir Charles Tennant and his family in their sad bereavement was unanimously passed, and the proceedings were thus concluded.

THE SOUTH AFRICAN GOLD TRUST, LIMITED.

A brilliant record.—South African stock.

The annual general meeting of the shareholders of the South African Gold Trust (Limited) was held yesterday at the Cannon-street Hotel, the chair being occupied by Mr. H. E. M. DAVIES.

The SECRETARY (Mr. W. F. Andrewes) read the notice convening the meeting.

The CHAIRMAN: Ladies and gentlemen, I think our most captious critic will admit that our accounts are as fully and fairly set out as they well can be, and that the auditors' certificate at the foot of the balance sheet leaves nothing to be desired in the matter of completeness. This being so, there remains the less for me to say; however, I beg your indulgence for a few moments while I go through the various items in the accounts. The share and debenture capital, you will see by the balance-sheet, each stand at a quarter of a million; but in regard to the debentures, you will observe that £100,000 was not due until January 1, on which date it was paid. The sundry creditors and bills payable, together, look a heavy liability, amounting to £328,000. This is quite exceptional, and arises from the fact that stocks were purchased in anticipation of the debenture issue. If you will refer to the balance-sheet you will see that we had against this cash at the bank £151,000; debtors for stock sold, £69,000; cash advances and bills receivable, £20,000; and the balance of the debenture issue (which I have referred to), £100,000, making together, practically, a cash asset of £340,000, or some £12,000 over and above our liabilities. These, as a matter of fact, have all been discharged since the turn of the year, and our present position is that after meeting our obligations and paying the dividend, we have, including the preference issue I am going to ask you for presently, the sum of £284,000 available for investment. Now, as to our investments. Of course, our great asset is our holding in the new ordinary stock of the Consolidated Gold Fields of South Africa (Limited). The position and prospects of that company have only recently been so ably expounded by one of its managing directors that I need hardly refer to them again, but I should like just to point out to you what our holding in that company really means. The Consolidated Gold Fields of South Africa (Limited) has a debenture and preference capital of £1,850,000, which is practically represented to-day by cash, Government stocks, and De Beers shares, leaving the company's immense holdings of gold stocks and Deep Level interests as the reversion to the 625,000 ordinary shares. I am not going to weary you by going over these holdings in detail, nor should I be justified in doing so, but from the published accounts you can see for yourselves that the Consolidated Gold Fields of South Africa (Limited); owns half of the Simmer and Jack Gold Mining Company (Limited), equal to a claim interest of 450 claims; it owns two-thirds of the Gold Fields Deep (Limited) equal to a claim interest of 665 claims; it owns two-thirds of the Village Main Reef Gold Mining Company (Limited), equal to claim interest of 60 claims; and four 20-5ths of the Crown Deep Gold Mining Company (Limited), equal to a claim interest of 31 claims; or a total claim holding in these four companies alone of 1200 claims. I am speaking roundly in each case. Our interest in the Consolidated Gold Fields of South Africa (Limited), new ordinary shares is nearly one-sixth, giving us an interest on the above basis of no less than 200 claims—claims which I may say are spread over the pick of the Witwatersand district. It is known to you that under each claim you may fairly reckon on finding £50,000 sterling, thus giving us a bullion interest of £10,000,000 in respect to these claims, or an approximate ultimate profit of 5,000,000 in regard to this portion of our investment alone. Our other holdings, as you will see by the report, are chiefly in Witwatersrand stocks of the very best class. Among the minor ones, however, are some of a more speculative character. These are shares bought in the initial stages of the companies with a view to large ultimate profit It is a class of business which, I think, our company should undertake in a moderate way, being, as we are, in a position to average, and more particularly as we are in a position to do what the individual cannot—watch the various investments on the spot. Let me warn you, however, as individuals, not to look through our list of investments and rush into them on your own account because we have bought. A word as regards the preference issue. I think, on looking over our investments, you will say that we have done fairly well for you in regard to the share and debenture capital. Now, whatever markets may be on this side, the gold mining industry on the Rand does not stand still; it goes on ever increasing, and yet it is still so much undeveloped that for years to come money will be needed for working capital, for legitimate mining undertakings, before the Witwatersrand may have been said to have reached its zenith. It is to be in a position to subscribe as opportunities offer to such working capital that we ask you, on the strength of our past record, to entrust us with a further sum for investment. It is entirely optional with you whether you, as individuals, subscribe it or not, because, as you will see it stated in the report, the whole issue has been guaranteed to the company; there is consequently no risk of injury to your stock on account of failure. On the contrary, I venture to think that it speaks volumes for the Witwatersrand gold industry, and for your company, that strangers are willing to give us money at 6 per cent. This rate of interest is a moderate one, and I think you may safely reckon when next year comes round we shall be able to show you that we have improved your position by the issue. Now, as to the dividend. Forty per cent is a large dividend to pay. Our interim dividend was on a more modest scale, and the paying of so large a dividend has given rise among us to considerable debate. We were anxious, on the one hand, to give the shareholders as far as we could the benefit of what had been earned for them. On the other hand, we have been still more anxious not to pay a dividend which we did not see our way to maintain. In deciding on the dividend, we have looked into our prospects for the current year and for the year to come. The dividends accruing from our holding in the Consolidated Gold Fields of South Africa (Limited) will be sufficient to pay our expenses, the interest on the debentures and preference shares, and will leave a fair return upon the ordinary stock; and beyond this, barring revolution or commercial collapse (of which there are no signs), we think we fairly see our way to maintain the dividends for at least the periods I have named, even if we do not enter upon any new business. Beyond this I do not think we are called upon to look, but still, with the growing development of the Witwatersand, I see no reason why we should hesitate to predict even further ahead. I trust the decision we have come to meets with your approval. Our company is called by the world in general a speculative company. It may be. I do not wish to compare it with companies which we class here in London as sound commercial undertakings, some of which pay respectable dividends; but I do wish to call your attention to the fact that, since the company started in 1888, it has, including the year under review, averaged in dividends over 25 per cent. per annum. The shares are fully paid, and the money with which the shareholders have from time to time entrusted us has never been in jeopardy, and, moreover, if we were to liquidate to-day, we could, after discharging all our obligations, return the shareholders between £3 and £4 for every sovereign which has been subscribed. This may be speculation, but it will lead the thinking man to reflect that he may do worse than put his money into South Africa judiciously. I beg to move the adoption of the report and accounts.

Mr. W. M. FARMER seconded the motion.

Mr. JAMES PRICE spoke of the ability with which the Chairman had placed the present position of the company's affairs before the shareholders. He thought, however, that the £250,000, which it was proposed to raise, would be rather a large sum to invest at the present high price of South African stock.

The CHAIRMAN, in answer to questions, said the directors in asking for the additional capital, pointed to their past record, without giving any indications as to what they were going to do with the money. (Hear, hear.) He might repeat that if they were to liquidate to-day they would be able to return the shareholders between £3 and £4 a share for every £1 invested. (Applause).

The motion for the adoption of the report and accounts, with a rider declaring a dividend of 6s. 6d. a share, was then put and carried unanimously.

Mr. FIRTH moved a resolution voting an additional £2000 to the board of direction as an acknowledgment of the admirable manner in which they had piloted the company.

Lord GRIMSTONE seconded the resolution.

Messrs. ELLIOTT and PRICE having spoken in high terms of the management, the resolution was put, and carried unanimously.

Subsequently an extraordinary general meeting was held, when, upon the motion of the CHAIRMAN, seconded by Mr. W. M. FARMER, the following resolution was carried unanimously:—

That the existing share capital of the company be increased to £500,000 by the creation of 250,000 new shares of £1 each to be called preference shares, and to confer on the holders thereof the right to a fixed cumulative preferential dividend at the rate of £8 per cent. per annum on the amount for the time being paid on such preference shares, such preference shares to rank, both as regards capital and dividends, in priority to the ordinary shares in the capital of the company.

A hearty vote of thanks to the Chairman terminated the proceedings.

UMTOLI GOLD REEFS, LIMITED.

The progress since the formation of the Company.

The statutory meeting of this company was held on Wednesday at the Offices of the company; Mr. J. DENNIS presided.

The CHAIRMAN said that this meeting was held simply to comply with an Act of Parliament which prescribed that, whether any business had been done or not, the shareholders should be called together within four months of the formation of the company. He hoped that the amendments which were being proposed to the Companies Acts would include one by which more elasticity would be given to this clause, so that the first meeting of a company might be a really business meeting, instead of the formal affair which was usually the case now. He regretted that more shareholders were not present, though their absence was easily accounted for by the well-understood practice of making these statutory meetings mere matters of form. But as he had an opportunity of addressing them, he would be glad to tell them what had been done since the formation of the company. No time had been wasted in getting to work, and the directors had appointed Mr. Hill their manager on the spot, and he had at once set to work to develop the property in a business-like manner. The lay of their reefs rendered mining a comparatively

easy matter, inasmuch as the outcrop was some distance up the side of the hill, and therefore there would be no trouble in draining, nor would expensive shafts be necessary. He was not a believer in spending the company's working capital by erecting a lot of machinery until it was sufficiently demonstrated that there was plenty of quartz to enable a battery to be run, and the stamps fully occupied for a long time in advance. The reports on their property, however, sufficiently indicated the extent of the gold-bearing reefs to warrant the erection of a small installation, and the directors had been fortunate in acquiring a battery quite sufficient for all present purposes at a very reasonable figure, inasmuch as it had been the property of a company in the neighbourhood which had made the mistake of erecting expensive machinery without fully proving that there was sufficient quartz to keep it constantly employed. Of course, when this company's property was fully developed, many more stamps would require to be added, but in the meantime, they had sufficient for practical purposes with a very moderate outlay. So far as regards the work actually done, that was all he had to tell the shareholders, but he might mention that the directors had been in negotiation for the adjoining 12 claims, known as the Abercorn Reefs, which practical tests have shown to be rich in gold. The properties had been offered to them at a very reasonable price, and one which he thought the directors would have been willing to pay, but they declined to make any bargain without grave consideration and consulting the shareholders first, if possible. He was sorry to say that, meantime, the parent company, the African Gold Concessions, had accepted the overtures of other parties, and the property had been sold over their heads. This he did not consider to be altogether fair to them; at the same time, they had no option but to bow to the inevitable. He had himself seen the managing director of the African Gold Concessions: but the best terms he could make with him were that this company should have a twelve months option on any 12 claims along the line of reef which they might select within the next three months. Although this was not, in his opinion, so much to their advantage as acquiring the immediately adjoining Abercorn Reefs would have been, still, they were getting something for nothing, and could not, therefore, grumble. In conclusion, he would assure the shareholders that no delay should occur, and that work on the property should be pushed forward with all vigour. He hoped that at their next meeting he would have a record of work actually done and profits made to put before them.

Mr. ALBERT HALL asked what was the reason that they had lost the Abercorn Reefs, which the Chairman had referred to, and what would have been the advantage to this company if the purchase had been carried through.

Mr. ARKWRIGHT wished to know whether the company had sufficient funds in hand to pay for additional properties, and, if not, in what manner it was proposed to acquire those which the Chairman had referred to. He would also like to know about the working capital of the company, and whether it was proposed to make any further calls.

The CHAIRMAN, in reply, stated that the reason they had lostthe Abercorn Reefs was simply this: That while the directors were considering, first of all, whether they should buy the property, and, secondly, how they should pay for it, other persons came in and made a better offer than that at which they were asked to buy, and thus secured the property over their heads. He felt sorry that they had missed the opportunity, as this part of the reef was undoubtedly as rich as, or richer, than their own, and, being immediately adjoining it, could have been very economically worked. However, they had been approached by the purchasers, who had expressed their willingness to work in harmony, and as they had the option of selecting the next twelve claims further south if they were convinced of their desirability, it might be that they could so arrange as to erect their mill in such a position as to serve all three mines, and in that case they would have two mines being worked at two-thirds the ordinary cost of one, so far as milling was concerned. He could not go further into the matter, but the shareholders might safely leave the matter in the hands of their manager, who was a most capable and experienced gentleman. As regards the methods of paying for the Abercorn, this question did not now, unfortunately, arise, and as regards working capital they had plenty for all purposes. The mill had been paid for, and the only expenses, therefore, were those of actual mining and milling. The shareholders might rest assured that no call would be made except in the case of extensive development demanding more money for working expenses.

A vote of thanks to the Chairman and directors closed the meeting.

WHITE FEATHER "REWARD" CLAIM LIMITED.

Dollying pays for shaft sinking.-Speech from the Hon. H. J. Saunders.

The statutory general meeting of the members of this Company was held yesterday, at Winchester House, Old Broad Street, Mr. F. A. Thompson presiding.

The Manager and Secretary (Mr. Allen H. P. Stoneham) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen, this, as you are aware, is the statutory meeting of the Company, which we are compelled to hold at this time, and as no accounts fall to be presented, the business would, under ordinary circumstances, be purely formal, but the holding of the same at this time affords your directors the opportunity of laying before you what has been done by them on your behalf, and the progress that has been made, and also of laying before you for your consideration, a proposal which they consider of special importance to you as shareholders, and one the advantages of which, in the opinion of your Board, should not be lost sight of, nor the opportunity it presents, ignored. The Company has now been formed about four months, during which time we have secured the transfer of the property and have continued the sinking of the No. 1, or South Shaft, situate 20 ft. north of our southern boundary, to a depth of about 165 ft. on the dip, or underlay of the Reef. To be strictly accurate it was reported to us by cable as being 156 ft. deep on the 14th inst., so I assume we are safe in estimating its present depth at 165 ft. The reef in this shaft has varied somewhat in thickness, starting at the surface with a width of from 2 ft. to 2 ft. 6 in., it has never been found in the shaft less than that, and in some places has widened out to fully 9 ft., and I consider myself perfectly safe and well within the mark in stating, that from the information at hand, the average width of the reef from the surface to the bottom of the shaft will prove to be 4 ft., and its average value 3 oz. of gold to the ton. This I apprehend should be considered good enough for almost anyone. No. 2, or North shaft, situate about 530 ft., north of No. 1 shaft and about 460 ft. south of the north boundary, has been sunk to a depth of 80 ft. upon the underlay of the reef, and while the reef has not been found quite as large or as rich as in No. 1 shaft, it has been found throughout the shaft to be payable, both as to size and quality, and is liable to intersect the shoot found in No. 1 shaft, at any time. I think it can but be considered highly satisfactory when I state that the expense of sinking both of these shafts from the surface to the present depth has been more than met by the results of dollying the richer portions of the reef extracted within the boundary of the shafts, as the work has progressed, and that the only expenditure of your working capital thus far has been the first instalment paid upon the hauling and crushing machinery, ordered for the equipment of the mine, and one quarter's salary of your officials, which I am sure ou do not grudge them, in view of the results obtained.

met a shareholder on the street the other day, who asked me if I were not going to say something new and original at the meeting today. I think you will agree with me that this is a new feature in Gold Mining; if not original with us, at least I do not know of another instance where such results have been obtained by any of the English Companies operating in West Australia—or, in fact, anywhere else—and I should like to ask the gentleman, whom I see present, if this complies with his request. We are also engaged in sinking a main working shaft 4 ft. by 10 ft. in the clear, inside of timbers which is now down to a depth of about 5 ft., and which is being pushed forward with all possible speed with a view to its intersecting or connecting with the reef at about 150 ft. when the workings upon the reef will all be connected with the shafts referred to, thus supplying perfect ventilation throughout, and developing sufficient ore reserves ahead of the mill to enable crushing operations to be carried on uninterruptedly, while the shafts are being continued, down to other and deeper levels, and additional ore reserves are thus being developed. From data at hand I have prepared rough plans of the property showing its relation to the adjoining claims, upon this proved line of reef, and the situation of the various workings to which I have referred, together with a section upon these workings and their proposed extensions. While I cannot at this distance from the mine, present them as being strictly accurate in all details, yet they are sufficiently correct to enable you to more clearly understand the present situation, and the operations proposed to be carried on upon your property. The location of No. 1, or south shaft, is, as you will observe, within 20 ft. of your southern boundary, and this fact is of the utmost importance in connexion with the proposal which your Board will make to you to-day, as to the acquiring of the Golden Eagle claims, from the Goldfields Company, which proposal has been intimated to you in the notice of meeting calling you together. It will be apparent to you that by the location of this shaft we have been developing the northern portion of that property by the sinking of the same, and as it is proved beyond question that the Reward reef extends into and through the Golden Eagle property, it must be equally apparent that its acquisition by this Company is very important to its shareholders, as, by acquiring it, our producing capacity from the reef is doubled, the cost of management need not be increased, and the increased cost of development will be more than compensated by the advantages thus derived. Our most worthy parent, the West Australian Goldfields, having acquired this property from the Australian or local owners, have at the suggestion of your Directors given us the offer of taking these claims from them, upon most favourable terms, and have given your Directors the option, for a sufficient length of time only to enable us to lay the proposal before you for your approval or otherwise. I need hardly state that your Board consider the terms most favourable to this Company, after the most careful consideration, and, as its members firmly believe, in the best interests of the shareholders, unhesitatingly recommend your acceptance. If you agree with your Directors that it is advisable to acquire this property it will be necessary to increase the capital by the creation of £20,000 new shares—10,000 of which are to be issued to the Goldfield Company in exchange for the unencumbered title to Leases 255 and 256—the Golden Eagle property, and 10,000 are to be held in reserve for future issue for working capital as the same may be required. Now, Gentlemen, members of the Press, I desire you should make it perfectly clear in your report of this meeting that we are not now in want of working capital—that the proposed increase of capital is on most legitimate lines,—viz., for the purpose of acquiring additional ground which is proved to be valuable, and which we as a Board are satisfied will be a very great acquisition to the assets of this Company, I wish you to be specially distinct upon this point for the reason that remarks have been made as to the working capital of West Australian companies, and I want to establish the fact that, at present at least, ours is ample. I may say in this connexion that, fully believing in the permanency and value of this line of reef, I have purchased the block immediately adjoining the Reward Claim on the north, on terms much more onerous than those on which the offer of these claims have been secured to us, and I might add that I am by no means sick of my bargain. You will be pleased to hear that the hauling engine for the equipment of the shaft and the 10-stamp battery ordered from Adelaide have been shipped, and is now on the way to the mine. Also that we have engaged the services of a thoroughly competent mechanical engineer to erect the same, and, what is of equal importance, —namely, that there is sufficient water in our own and the Golden Eagle shaft controlled by us to enable crushing operations to be commenced and carried on as soon as the machinery arrives at the mine, and can be properly erected, and that the plant has been so arranged that its crushing capacity can be doubled without interruption and at comparatively small additional expense. Since the formation of this Company a large amount of development work has been carried on in this district, and in every instance with most favourable and satisfactory results. In fact, I do not know of a single instance where development work upon the known lines of reef has proved unsatisfactory, or where the reefs have been abandoned as unpayable, and it can but be gratifying to you to know that both north of, and south of your property in the Golden Eagle and Bissenberger claims on what is known as McAuliffe's line of reef, most excellent results have been obtained, and there is every reason for believing that this line of reef will prove to be one of the best paying ones on the field, which, as you know, is an enormous one. I am pleased to be able to invite you, at the close of the meeting, to inspect the fine specimens of quartz which have been sent us from the mine, and, at the same time, to show you those from another mine in the White Feather District, which are equally fine. These are from the Golden Crown property, locally known as Micklejohn's Claim; the same having been received yesterday by the West Australian Exploring & Finance Corporation Limited, who recently purchased this property, have been loaned to us to-day in order to satisfy you that those exhibited to you as coming from your property are not the result of the finding of an isolated pocket of rich specimens, but that there are other mines in the district producing the same character of rock, and which would seem to bear out the statements made that the White Feather District is one of the richest, best developed, and permanent reefing districts in Western Australia, and I feel warranted in stating that some of these properties are fast approaching the dividend-paying stage, and that foremost among them is the White Feather Reward Claim. (Applause.) Gentlemen, I hope I have been able to make the present situation of the Company's affairs clear to you, and will not detain you longer, as there are several gentlemen present who have but recently seen the property. I am sure you will much prefer hearing what they have say to any further remarks from me. After these gentlemen have addressed you I shall be pleased to answer to the best of my ability any questions you may desire to put regarding the Company's affairs.

The Hon. H. J. SAUNDERS said he had had charge of the mine ever since the White Feather Company was formed, and having visited it twice last year at an interval of about four months—the last time he was there being the end of October—he was able to say the company had an exceedingly valuable property. It was not one of those sensational mines that were occasionally heard of in Western Australia, but a really good, honest and *bona fide* mine, and one the shares in which the holders would be able to hand down to their children. He would not be at all surprised if their reef should go down for some thousands of feet; it was in a good country and was widening out all the way down. When he was there the miners were down below the 125 ft. level, and the reef there was 7 ft. 9 in. wide, and the stone was carrying very good gold indeed. A good many of the specimens on view in the hall were brought home by him personally. He took them from the heaps of ore at grass, some of the rich stone being too good to leave about. That, in fact, was the reason why it was considered advisable to crush some of the rich stone. It was easy for strangers to pick up little bits, and, therefore, they thought it safer to turn the gold into sovereigns, by which means they had almost managed to make the mine pay its own expenses. The reef at No. 2 shaft was not quite of such a permanent nature, being a little more broken and not quite so thick as in the South Shaft, but it must be remembered that the North Shaft was at a higher elevation than the South; there was a difference in level of about 30 ft. When he was there the North Shaft had been sunk about 50 ft. In driving the shaft with a dip to the south they passed through a very rich shoot of ore. At the present moment, however, they had not driven a level right along the reef, as they were waiting for the main shaft to be taken down 100 feet or 150 feet before they drove in through levels to hit the main reef. When they did that, in driving north they would come on some very rich stone indeed. Mr. Lapage, who had been there recently, would, he believed, bear him out in regard to this rich shoot, as he also went down the shafts. They were driving the main shaft as quickly as possible, and when he came away there were 30 men employed on the mine. Not a 6d. had been wasted on the property, and anybody who went there could see where the money had gone—there, by the shafts, was the stone they had got out ready for the cruishing plant. Barring accidents, and providing they had no trouble in getting the machinery carried up—some of it, he believed, was already on the mine—they ought, with a fair run of luck, to have the first crushing about the middle of the present year. He hoped to leave England in March or April, and to be on the property to see the machinery start. He thought the shareholders would be perfectly satisfied with the results of the crushing, and that the mine would not only be a good dividend payer, but also that it would continue to pay dividends when once it began. The question of water did not trouble him at all. They struck it at 145 feet, and fur her down the supply had increased. They had also water at the Golden Eagle shaft. He understood there was plenty there to keep 10 head going, and that deeper they would get sufficient for even 40 head. He had had the machinery arranged so that they could duplicate it at less cost than the first cost of the plant, and also without having to stop their present battery at all. In further remarks the speaker pointed out that no time had been lost in developing the Company's property.

Mr. R. H. LAPAGE said he had recently returned from Coolgardie. He had made a special inspection of the Golden Eagle, and the shaft there on block 255 was down 85 ft. when he was there. He went down the shaft and took gold from it. There were four other shafts, varying from 80 ft. to 25 ft. deep, from all of which he took gold. There was a large quantity of stone at grass ready for crushing on the Golden Eagle property. He could confirm the chairman's statement as to the Reward reef extending into and through the Golden Eagle claims, and he was of opinion that the acquisition of the property would turn out very good business. When he was there, there was a little steam battery being worked on the White Feather, and the engineer told him he was actually paying expenses. At that time the telegraph had got as far as Hannan's; it had now reached the White Feather.

Mr. LLEWELLYN WILLIAMS, for some time the underground manager of Bayley's Reward Claim, said: Having arrived in England but a few weeks straight from the Coolgardie goldfields, I have been invited by your Board to attend here and give my candid opinion upon your property, and upon the Golden Eagle Mine which, I understand, your directors recommend your acquiring by a further creation of capital. I accept this invitation with great pleasure. I may say that I have no interest whatever in the purchase, and that I accept the invitation chiefly on account of the respect I have for the gentlemen on your board. At the time of the Coolgardie rush, I was one of the first to arrive on the fields. I have not merely resided in the district ever since, but have acted there as a practical mining engineer, which has given me exceptional opportunities of acquiring a sound knowledge of nearly the whole of the mines of Coolgardie. I know your property very well, as I also do the Golden Eagle adjoining it. Now first with regard to your own property. Briefly, from the northern boundary of the McAuliffe Reward Claim to No. 2 shaft, the reef, at a rough guess, averages from 2 to 4 ft. in width carrying fine gold throughout, and should yield 3 oz. to the ton. From No. 2 shaft to No. 1 shaft, which is only about a chain from the Golden Eagle boundary, the richness of the stone increases. The yield here, I am certain, will give from 5 to 6ozs. per ton. Now, from the first, I came to the conclusion that the chutes of gold had a southernly direction. My practical experience has proved this to be so. My firm conviction is, then, that if you sink the Golden Eagle to a sufficient depth, it must cut McAuliffe's reef where, I believe, you will find the stone even much far richer than in No. 1 shaft. Let me remind you that in addition to the reef—and this is an important consideration in view of your possible purchase of the "Golden Eagle"—you have about 30,000 tons of alluvium which could be treated at a low cost, to produce something like 6 oz. of gold per ton. This, alone would be sufficient to refund you the whole of the proposed purchase money. My advice to you is—and it is candid advice—on no account be so foolish as to miss this opportunity of acquiring the "Golden Eagle" property. At the price asked, you have a bargain; and I think, if you do acquire this property, you will find that in it you will have a source of large profits to your company, which will mean big dividends to you as shareholders. In conclusion, it may, perhaps, interest you to mention that it was through my instrumentality that the West Australian Gold Fields Company bought McAuliffe's Reward Claim, and my estimate of its value has been thoroughly justified by the excellent results obtained; and I think you will find that my judgment has been equally well exercised in the "Golden Eagle." I feel sure you will not regret having followed my advice if you purchase the property.

Mr. MEIKLEJOHN said he had had a long connexion with the White Feather District, and he was able to tell the shareholders that the Eagle property was pretty well proved to be very good. He could corroborate what had been said by the previous speaker.

The CHAIRMAN: From your knowledge and experience on the field are you satisfied that the Golden Eagle claims 255 and 256 are proved to contain the extension of the reef in the White Feather reward claim?

Mr. MEIKLEJOHN: Decidedly. The speaker added that the White Claim and Golden Eagle were among the best properties on the field.

The CHAIRMAN, replying to a shareholder, said the board were not prepared to give the shareholders a call upon the 10,000 reserve shares at any price. When, however, it was found necessary or advantageous to issue them he would always be in favour of giving those who had come into the company at the start as good terms as outsiders. (Hear hear.)

An extraordinary general meeting was afterwards held for the purpose of considering the following resolution—viz. :—

"That the capital of the company be increased to £80,000 by the creation of 20,000 new shares of £1 each."

This was seconded by Mr. PHILLIPS, and carried unanimously, and a hearty vote of thanks to the Chairman, proposed by Mr. ARTHUR TOOTH and seconded by Mr. ROCKLEY, terminated the proceedings.

In the hall were exhibited several specimens of ore taken from the property, many of them having been brought over by the Hon. H. J. Saunders. They were the subject of considerable interest on the part of the shareholders.

WHEAL BASSET.

Loss of £149.—More encouraging prospects.

A 13-weeks' meeting of adventurers in Wheal Basset was held on the mine on Tuesday. Mr. F. OATS presided.

The accounts showed:—Labour costs, £3440 12s. 6d.; coal, £1237 10s.; merchants' bills, £625 8s. 4d.; bank charges, £34 4s. 2d.; Stannaries assessment, £4 14s. 8d.; total £5342 9s. 8d. On the other side, 132 tons 16 cwts. 2 qrs 13 lbs. of tin sold for £5109 3s. 1d., the average price being £38 9s. 4d.; by extra carriage of tin, £7 16s. 3d.; discounts, £52 15s. 1d.; spare materials, £5 18s.; sand skimmings, £17 19s.; total, £5182 17s. 5d. There was a loss on the quarter of £149 12s. 3d., and a balance against the adventurers of £275 4s. 5d.

The committee's report was as follows:—

Your committee beg to congratulate the shareholders on the statement of accounts now rendered—that in spite of an almost unprecedentedly low price of tin, the company has so nearly paid its costs—and under the circumstances of the loss being so small, they do not recommend a call being made at the coming account meeting. It will be noticed that the increased production of tin this account of 12 tons 18 cwts. 2 qrs. 6 lbs. more than last quarter has arisen from the better quality of stuff stamped, which has, indeed, been 758 tons less than last time in quantity—that is, 5421 tons this quarter against 6180 last, so that the stuff has yielded 54½ lbs. of tin per ton this quarter against 43¼ last, although the quarter before was 47½ lbs. The large quantities of water with which we have had to deal, and the frequent stoppage of work arising therefrom, have prevented the usual quantity of tinstone being raised. The statistics of the past year's work, which have been drawn up by the purser, show that the mine has really improved its position considerably during the past year, and only requires a better price for tin to realise dividends for the shareholders.

The agents (Captains W. James, C. Clemo, and J. Andrew) reported:—

The 230 end west, on Wheal Basset lode, is driving by boring machinery at £9 per fathom; lode poor. The 230 end east of main crosscut is driving at £10 per fathom; worth £8 per fathom. A stope working in the back of the 230 fathom level is worth £25 per fathom; stoping at 3s. 6d. per ton. A stope working in the back of the 230 fathom level is worth £12 per fathom; stoping at 3s. per ton. The 220 end east of main winze is worth £10 per fathom; driving at £10 per fathom. A stope working in the back of the 220 fathom level is worth £20 per fathom; stoping at 3s per ton. The 210 end east of main winze is worth £18 per fathom; driving by boring machinery at £9 per fathom. The 210 end west of main winze is worth £10 per fathom; driving at £8 per fathom. A winze sinking below the 210 fathom level is worth £13 per fathom; sinking at £8 per fathom. A stope working in the back of the 210 fathom level is worth £12 per fathom; stoping at £3 15s. per cubic fathom. The 200 end west is driving by boring machinery at £7 per fathom; lode poor at present

A stope working in the back of the 180 fathom level is worth £10 per fathom; stoping at 2s. 9d. per ton. A stope working in the back of the 170 fathom level is worth £7 per fathom, stoping at 5s. per ton. We have at present 117 men working on tutwork; also two tribute pitches working on tribute by six men at 12s. in the £, standard £37 per ton for black tin. Total employed in every department underground, including shaftsmen, timbermen, trammers, and fillers, 140 men. In conclusion, we are pleased to say the mine has opened up exceedingly well during the past quarter. Our cost has increased of late, which is accounted for by having a very large increase of water to deal with. Our pumping engine has been working over nine strokes per minute for some time, and our hauling engine has been hauling water four, and sometimes five days per week, in order to keep the mine from being flooded.

The CHAIRMAN, in moving the adoption of the accounts and report, said the fact that they were in no worse a position after having gone through a quarter where the price had been so unprecedentedly low, with the wettest period of the year, with all their tin coming from the bottom of the mine and the engine going at full speed, that was, so far as his information went in regard to Cornish mining, a record performance. (Hear, hear.) He happened to be present at a meeting of the adventurers of a neighbouring mine a little while ago when some outside shareholder asked a question whether they were not working an engine for the benefit of Wheal Basset Company. It was true that at the instance of Wheal Basset a meeting of the committees of the two mines was held, and he pointed out that owing to that part of South Frances not being kept in fork—without disputing the right of South Frances to keep it idle if they liked—they were getting about two strokes of water a minute more than they ought to have, and that there was a possibility of their being drowned out when the winter came. They were received very nicely, and the South Frances committee recognised that it was not even in their own interest that Wheal Basset should be drowned out, and they promised that the engine should be kept working. Nothing further had been said, except a complaint on their part from time to time that the water was not in fork, and the response that they were doing as well as they could. As he had said at the South Frances meeting, Wheal Basset did not wish to be under any obligation to South Frances for the working of that engine. If they did not want to work that engine for their own purposes, or that part of the sett for their own good, they had better let the engine stand; and if through that more water came to Wheal Basset, the shareholders of Wheal Basset must take the consequence; or, perhaps, they might apply for that engine for their own purposes, and pay the expense of it. But he would not have it without the corresponding benefit of any ground that was drained by that pumping engine. Their especial thanks were due, he thought, to the agents of the mine, who had in such a trying time been able to go through another quarter with a loss so small that the committee had not recommended a call. (Hear, hear.) Captain Oats presented a comparison of the cost of working at Wheal Basset during 1893 and 1894. In the year 1893 they raised 23,494 tons of stuff, costing them £24,957, or 18s. 10½d. per ton of stuff raised and stamped. The value per ton for the year was 16s. 0½d., and the total quantity of tin 432 tons. In the last year they had raised 21,965 tons, which was about 4500 tons less than in the previous year, owing largely to the water charges and hindrances, and that had cost them £21,738, or 1s. a ton more, owing to their having to carry on practically the same stamping, pumping, and establishment charges with a reduced quantity of stuff. The value was 1s. 6d. per ton in spite of the lower price of tin. They had not lost so much money in 1894 as in 1893. (Applause.)

Captain OATS spoke of the value of the experiment of the Tuckingmill Foundry Company in developing Wheal Agar with modern appliances, and expressed the opinion that in Cornish mining it would be necessary to reduce the labour costs by the employment of machinery, the improvement of dressing appliances, air compressors, and the pumping and stamping engines.

Mr. TREMBATH seconded the motion, and it was carried.

Mr. F. HARVEY moved that the committee be thanked and re-elected, with the addition of the name of Mr. T. B. Bolitho, M.P. He endorsed all that had fallen from the Chairman, and said he thought the question of amalgamation of mines was one that received thorough consideration. Mr. Trembath, one of the Wheal Agar committee, had suggested a large amalgamation scheme for mines on the south of the hill—East Pool, Wheal Agar, Carn Brea, Tincroft, and South Crofty. He felt sure, unless they got a better price for tin, some such step would be in the minds of many people.

Mr. D. W. BAIN seconded, and it was carried.

On the motion of the CHAIRMAN, seconded by Mr. JOHN MAYNE, a hearty vote of thanks was accorded the purser and manager.

Captain W. JAMES (the manager) in reply, said he never saw the mine looking better for tin, and worse for water. This latter matter was rather a serious one. They had a very good lode north in the bottom of the 230, but he did not suppose they would do much more to the bottom until May or June. They also had a very good lode on the south part of the lode, and had opened up some very good ground at the 220 and 210.

Mr. WICKS proposed, and Mr. MAYNE seconded, a vote of thanks to the Chairman, which was heartily accorded,

THE LONDONDERRY GOLD MINE, LIMITED.

Statutory meeting.—Testimonies to the richness of the property.

The statutory general meeting of the Londonderry Gold Mine (Limited) was held yesterday, at the Cannon-street Hotel, Colonel J. T. NORTH, the Chairman of the company, presiding.

The SECRETARY (Mr. John H. Gretton) having read the notice calling the meeting.

The CHAIRMAN said there had necessarily been delays about this business. He was sorry that they had not been able to call the meeting sooner, but he could assure them that in the meantime their interests had not been neglected. A great many people had been to the mine and examined it, and of all the people he had seen, everybody agreed that this Londonderry Mine was one of the richest mines in the world. (Applause.) Some remarks had been made about the acreage this company possessed. The Department of Mines had issued a form, in which they stated that a lease would be granted for 25 acres. When a mining claim was discovered, pegs were put at four corners of the ground, and the miners took care to enclose within this area the find they had made. The men who discovered the Londonderry thought they had pegged out 25 acres; but when the ground was measured, it was found that they had only pegged 16 acres, and the experts who reported upon the mine reported upon the land within the pegs. The discoverers of a new district such as this were entitled to a 25-acre claim, and no one doubted that the Government would give these discoverers the area to which they were entitled. Everyone wondered what inducement the Government had to grant a lease of only 16 acres, but it was thought best in the interests of the company to accept for the time being the lease of 16 acres, especially as the Golden Treasure was undoubtedly well within the area granted by the lease. They thought however, it would be advisable for the company to have a large area of land, and, speaking as one of the vendors, they had an opportunity of acquiring a very considerable area of mining claims in the immediate neighbourhood of the mine. This large area of about 130 acres they had made a present to the company. (Cheers.) One of these claims, Carter's West Londonderry, extending to 24 acres, adjoined the Londonderry claim proper on the west; another claim, that of the Fiery Cross, extending to about 15 acres, adjoined on the east, and on this claim a rich lode of gold had been discovered. A third claim was along the direct line of the reef to the south, and on all these claims other deposits of gold had been discovered. The mine was so phenomenally rich on the surface that it could not be left open; and it was, therefore, sealed up by the Warden. Lord Fingall would not allow any more gold to be taken out from the mine, until it was in the possession of the shareholders, who practically had all the wealth of the mine still in their possession. He could tell them a good deal about the richness of the mine from the reports of expert engineers whom he had seen; but he was glad to notice that a great many of these gentlemen were present, and he would ask them to express their opinion of the property, and what they had seen themselves. They had been told on good authority that a very large quantity of gold could be taken out of the mine at once. It appeared to be a phenomenal mine, and they had been credibly informed that in eight weeks they could take out 5 tons of gold. (Applause.) They had hesitated to open the mine until everything was completed to prevent robbery, but they would very shortly commence operations. It was cemented and sealed, and built over with iron for safety, and when it was opened he believed that, in a very short time, they would be able to pay dividends. He thought that the shareholders would find that in a short time the capital of this mine was not excessive, and that the shares would soon be at a very high premium. (Cheers.)

Mr. FITZGERALD MOORE said he was on the ground some little time ago, and such a sight as the Londonderry Mine he had never seen before. There was gold in sight there, which would astonish any man who saw it, and though some people over here seemed to think it over-capitalised, he believed it would return the whole of the money subscribed in less than a few months' time. (Applause.)

Mr. AARONS remarked that, though not an expert, he had been interested in mining for the past 25 years as an investor. He seldom put his money into a mine without looking at it, and the strongest evidence he could give as to his opinion of the property was that he had applied for and obtained 3,000 of the shares. (Applause.) He saw the mine before Lord Fingall purchased it, and was surprised at the marvellous richness of the stone. The Londonderry reef was different from that of the Bayley's Reward. It varied from 4 to 7 feet in width, and carried enormously rich gold, going through and through the stone. Where a reef carried its gold right through it must be of a solid and substantial character, and undoubtedly must continue in depth. He considered the Londonderry as being certainly the richest mine that had ever been discovered in Australia. (Applause.) He had seen the whole of the specimens exhibited in London when they were taken out, and noticed that the stones that remained were equally as rich as those which were exhibited here. He also saw very rich gold at the 50 feet level, which was a proof that the reef was going down in equal richness to what it was on the surface. Since he left he had read a letter from a mine manager, who had no interest in the property, stating that the shoot of gold was strong at 73 feet on the end of the shaft from the original strike, which led to the belief that there must be two distinct shoots of gold in the mine. (Applause.)

Mr. GORRIE said he had not seen a very great deal of the mine, but he was afraid to say what he thought of the district. Mr. Shaw, the Mayor of Coolgardie, told him that if he were given a free hand he could take 5 tons of gold out of the Londonderry within eight or nine weeks. (Applause.) He was one of the pioneers of the field, believing it would have a great future as far as the quartz reefs were concerned. He had devoted his attention to the reefs, leaving the alluvial stone, although alluvial gold could be picked up all over the place, in some spots really like fruits that had fallen from the trees. The reefs in the district were very plentiful, and of a higher-class grade than he had seen in any other part of Australia. (Applause.) Bayley's Reward was a great claim, and he had been told, ever since he had been in London, that it was nearly worked out. He believed, however, there was not a man in the room who would see Bayley's Reward worked out. (Cheers.) He had seen Bayley's Reward from the commencement; he had seen it at 280 feet in depth and there was still a well-defined lode there, which looked as if it would go down to the centre of gravity. (Cheers and laughter.)

Mr. MYRING said that in four of the blocks which the vendors were giving to the company, the Londonderry reef had been traced on the surface; so that if the reports were correct they had at least twice the length of the Londonderry lode that they previously possessed in the Londonderry claim proper. It was certain also that the West Londonderry possessed the deep level of the Londonderry rich shoots. There was another good lode showing rich gold they had heard of in the Fiery Cross—another of the blocks added to the property—which was about 4 feet wide, and was said by cable to carry gold wherever it was prospected. An acreage of 130 acres was too large an area for one company to work, and in course of time, no doubt, the shareholders would receive a handsome revenue from subsidiary companies, especially after the Londonderry had paid—as he was sure it would enormously—within a very few months. (Cheers.)

The Earl of FINGALL, who was received with cheers, said that he was out at Coolgardie in August and September last, with Mr. Myring. He did not pretend, personally, to have very much knowledge about gold-mining; but what struck him was that every individual who had seen the mine looked upon it as absolutely the best he had seen in his life. In South Africa a yield of a few pennyweights was considered favourable, but the Londonderry rich shoot gave about 6000 ounces to the ton, and at 70 feet they had gold giving about 600 ounces to the ton. This was altogether a separate shoot from the very rich ore. They might easily calculate that if the rich shoot went down in depth—and the probability was that it did so—the yield must be enormous. The calculations made by experts out there was that every 20 feet which was similar to what they had on the surface, would be worth from £300,000 to £400,000. He was going out to the mine immediately, and, in fact, would start that day week. (Applause). He could assure them that when he got to the mine it would not be his fault if the gold was not shovelled out as quickly as possible. (Cheers.)

Mr. PEARCE remarked that he could not add much to what had been already said by the former speakers, as to the value of the mine, but he could safely say that these were the opinions of all practical men who had been there. There was no doubt that this was a phenomenal mine, and he had never seen anything like it in any part of the world, either in Australia or anywhere else. Although Bayley's reef up to the present time had been a very good thing, it was considered there almost an infant, alongside the Londonderry. (Applause.) He therefore believed that the shareholders would before long find that they had invested their money in a very good thing.

The SECRETARY then read the following letter from Lord Percy Douglas:—

> I am very sorry that I shall be unable to attend the statutory meeting of the Londonderry, as I cannot get back to town before the beginning of next week. I must, however, express my sincere wish that the Londonderry will meet with that success, which we all in Western Australia believe to be in store for it, and though you have a big capital to pay dividends on, it must not be forgotten that you have a marvellously rich mine where-with to do it, and with your largely increased acreage, which will now allow of the deeper levels being worked, I feel certain that there is a great future before the mine. I shall be very disappointed if your first returns do not rather startle the mining world. I have on several occasions hazarded an estimate to anxious engineers as to what your first quarter's returns might be, and have always been laughed at, but then I had seen the mine, and they had not, so that I am content to await results and fancy the laugh will be on my side, more especially as I well remember the time at Coolgardie when many people thought the Brownes mad for giving £6000 for five-sixths of Bayley's but they don't think so now, that half a million has been taken out and plenty more to follow. I do not in any way wish to force my impression of the mine on anyone. None of us can see under the ground, otherwise mining would cease to be a speculation, but you can't help believing in what you see, and as you had asked me to say a few words at your meeting which I am now unable to attend, I just write these few lines, being my honest opinion. DOUGLAS OF HAWICK.

Mr. STACK wished to have replies to the following questions:—He would like to know the approximate value of the quantity of gold in sight. Secondly, he wished to know the amount of capital actually subscribed for, and whether the report was true that the number of shares applied for only represented £80,000? (Laughter.) Would the Chairman also say when a special settlement would be applied for, and when it was likely to be granted?

The SECRETARY, at the request of the CHAIRMAN, replied as follows to Mr. Stack's questions. He first read the Warden's letter to the effect that every 20 feet of stone extracted in the rich shoot would represent more than £300,000. (Cheers.) He had the allotment sheets before him, and these showed that the number of shares applied for by the public was 478,003. Letters of regret were sent out for 11,010 shares, and 466,993 shares were allotted, which, with the seven shares applied for by the signatories to the Articles of Association, made up the total of 467,000 shares, viz., the amount offered to the public. (Cheers.) Application had been made for a Stock Exchange quotation, but the settlement could not take place until the shares were fully paid, which would be on the 8th of February next. (Cheers.)

Certain formal resolutions altering the Articles of Association were then unanimously passed.

Mr. HORACE CHATTERTON wished to be clear on the point of whether the vendors were making over the whole of the seven blocks without any further consideration.

The CHAIRMAN: Without a penny additional. (Cheers.)

Mr. CHATTERTON thought that the heartiest thanks of the meeting were due to the vendors for the very generous manner in which they had treated the shareholders. (Cheers.) He had taken shares in the company, knowing nothing of practical mining, but because he had found on the board such names as those of Colonel North, the Earl of Fingall, Earl de Grey, the Hon. Horace Plunket, M.P., Sir George Irwin, Colonel Dease, and Mr. T. H. Myring. He felt convinced that in dealing with these gentlemen he was dealing with those who would not be under the suspicion of being mixed up in a transaction that would not bear the closest investigation, and he was glad to find that his confidence had not been misplaced. (Cheers.) Having in view, therefore, the generous manner in which the shareholders had been treated by the vendors, he thought the meeting would join with him in giving them a hearty vote of thanks. (Cheers.)

Colonel KEYSER, C.B., said that as an outsider he had much pleasure in seconding the resolution. The shareholders had apparently got a phenomenal mine, and it also appeared that they had a phenomenal board of directors. (Cheers.)

The resolution on being put to the meeting was carried by acclamation, and the CHAIRMAN having briefly replied the proceedings terminated.

AFRICAN COAL AND EXPLORATION COMPANY, LIMITED.

Encouraging statement from the Chair.

A general meeting of the shareholders in the above-named company was held on Wednesday, at the offices, No. 3, Copthall Chambers, E.C., under the presidency of Mr. HERBERT SHAKEL.

The notice convening the meeting having been read,

The CHAIRMAN said:—Gentlemen, it gives me very great pleasure to meet you here to-day, the position of the company having altered very much of late, and, I am delighted to be able to say, for the better. The company, as you are aware, holds a very large and important coal-bearing property in the Middleburg district of the Transvaal, and this district, gentlemen, is regarded by all those having experience as the first of its kind in the South African Republic. This district, important as it is, has nevertheless been worked upon a comparatively limited scale, not so much because of the want of demand for its produce, as because of the limited means there have so far been of getting it off to those who require it. This condition of affairs has, however, been entirely altered by the opening of the Delagoa Bay Railway, which skirts the northern side of the district or coal field, and henceforward—that is so soon as the railway comes into what may be considered a normal condition of running, and able to carry goods, merchandise, and produce in a regular manner—there will be no difficulty in supplying coals of the finest quality to all in the Transvaal who may require them. And for this, gentlemen, we shall not have long to wait. The line was opened for passenger traffic between Pretoria and Delagoa Bay at the end of last year, but it had not been sufficiently completed to carry large quantities of goods. Matters in this connection, however, are mending rapidly, and within a month or two from now the railway will be in a position to meet all demands which may be made upon it. And this remark, gentlemen, applies almost equally well to our property, for while we have a splendid seam of coal 12 feet thick, and have sold some to customers at Middleburg, where it is regarded as one of the finest steam coals in the Transvaal, we have been compelled to wait for the completion of the railway to be in a position to dispose of very large quantities. In the meantime, all energy has been devoted to laying out the colliery, which is now capable of turning out a very large daily output, and by the time the railway is in a condition to take considerable quantities of coal, our tramway to the line will be completed, and enable us to get our produce away. This brings me to the character and position of our property. I may remind you that our estate, which is one of the largest of the kind in the Middleburg district of the Transvaal, lies close to Middleburg, and almost adjoining the township lands. It is about a little over two miles south of the railway, and it is over this two miles, or, at most, three, that the tramway is being laid. I may also remind you that our property is freehold, and, while of enormous value by means of its coal, it possesses a great value for tree-growing and agricultural purposes. Thousands upon thousands of fruit trees have been planted, and are now in full bearing order, and this should prove a means of considerable profit in the near future. But coal, gentlemen, is what we are particularly "going for," and you must forgive me for returning to this subject. There is any quantity of coal in the Transvaal; but the question is the quality, and that is where most of it fails. It is complained that it is of a slatey character, and does not give out a sufficiency of heat; but that is just the point where we in the Middleburg district "have the pull," for ours is a good free-burning coal, which does not agglomerate, and it leaves only a moderate amount of white ash. It is, consequently, excellent for steam purposes, and I may say that it is entirely suitable wherever a coal of the highest class is a necessity. Middleburg coal, in fact, excels, and is as far removed from that of other districts as is light from dark. And now, gentlemen, comes the question of demand—about which I may tell you there is not in the minds of your directors the very smallest question. The Johannesburg consumption of coal alone is already 50,000 tons monthly, but it is rapidly increasing, and is likely to develop with almost startling rapidity so soon as coal is obtainable more suitable for the purposes for which it is required. Then we have the Netherlands Railway, which requires a large quantity, and we are informed will only use Middleburg coal where that is to be obtained. Then, again, we have Pretoria, the capital of the Transvaal, close at hand, and going east, several important districts to which the question of fuel is almost one of life and death. These are anxiously awaiting the development of the Middleburg district, which must, from the position, be the only source of coal supply. Lastly, we have Delagoa Bay, which is already an important port, and a place of call for mail boats, and a considerable number of other ocean-going steam vessels. It is understood the trade of this port is rapidly increasing, and notwithstanding the recent disturbances in the locality, the tonnage of the vessels calling is close upon 50,000 tons monthly. And this, gentlemen, must of necessity go on increasing. Delagoa Bay must sooner or later become the most important of the South African ports. On this subject all authorities appear to agree, and from the Middleburg district alone can it practically obtain its supply of coal. There are other coal fields, of course, in South Africa, and very important ones too, but these, so far as the Transvaal is concerned, are practically out of the running, being too far away to be able to present any very important degree of competition. And now to enter a little more particularly into the position and prospects of the African Coal and Exploration Company. It has been pointed out to me that the Middleburg coal field is extensive, and ours is not the only colliery upon the field. This is true enough, but then comes the fact that we are informed there are only four coal properties—or, I should say, coal-owners having coal property on the line of railway, and these are consequently likely to be the only producers of importance for many years to come. These four are the Transvaal Government, Messrs. Lewis and Marks, the great coal-

owners of the Free State, the African Consolidated Land and Trading Company, and the African Coal and Exploration, and of these, according to the latest advices, the two last-named alone are at present able to deliver coal in quantity, or likely to do so for some time. The whole of the demand, therefore, must come to these four properties, and the two last-named—that is the African Consolidated and the African Coal—are first in the field even among these. The next question is the value of the coal as a matter of merchandise, and here we may state there is nothing to be desired. The cost of getting should not, when our colliery is in full work, exceed 5s. per ton; in fact, that is about the usual rate in the Transvaal where coal is worked upon an extensive scale, while the prices obtained are many times that figure. The profit which is obtainable, of course, depends to some extent on the cost of carriage, and I will not, therefore, say much upon this score, but I may remark that even with inferior coal the profit derived from most Transvaal collieries runs to about 5s. per ton, and we expect to make a very great deal more than this. And now, gentlemen, I come to a matter about which I feel obliged to speak almost with bated breath. We are negotiating the purchase of another most important coal property in the Transvaal, and this matter is now practically completed. Here we have a 6-feet seam of coal, I may say of superlative quality—coal which is now being sold at Johannesburg to the largest companies of that district. I have here in my hand a number of contracts and orders for coal, which I think you will agree with me prove more than anything else the value of Middelburg coal, and tell upon the prospects of the company. In the present position of affairs you will not, I know, look to me to say too much, but I think I may go so far as to tell you that these contracts are of an important nature. The customers to whom coal has been delivered comprise most of the best mining companies on the Rand, and the prices vary from 45s. to 60s. per ton. It is not for me here to build up a forecast of the future upon such figures. I must leave that to you; but, without reaching anything like the bounds of probability or reason, I think I may say that the company has a bright future before it, and is likely to become one of the most successful concerns we at present know of. (Great applause.)

A SHAREHOLDER remarked that the shareholders were, no doubt, very pleased with the account given of their property by the Chairman, but there were still one or two points upon which he desired to have information. He observed that while the Chairman spoke of the position and prospects of the company, he said no word as to machinery and its probable cost. He (the shareholder) opined nothing could be done without machinery, and the question of cost was a most important matter. He also observed that, though the new property was no doubt a very valuable one, here again came in the question of cost; and while anxious, under existing circumstances, to strengthen the hands of the board, and speaking, therefore, in no sense in a spirit of cavil, he thought the shareholders should know whether the matters referred to would involve any increase of capital, or the making of a call. The shareholders would support the board in the exercise of its policy; but these were matters, and especially a possible increase of capital, which would tell very considerably upon the prospects of the company—not so much, possibly, upon actual profits to be gained, as upon the degree of prosperity which might be attained.

Another SHAREHOLDER asked whether the coal seam now being opened was sufficiently developed by levels to supply any demand which might arise.

The CHAIRMAN stated that he had not touched upon the matters referred to, because, as they did not involve any of the contingencies mentioned, they had not struck him at the moment of speaking. The company's coal seam was worked by an adit or day level, and thus no machinery was required either for hauling or pumping. (Hear, hear.) They would have, no doubt, to spend some money—but even this would be a comparatively small sum—upon the tramway to the railway, and this was well within their means. While on this subject he might say the colliery had a large area of coal opened and ready to take away, and there would be no difficulty in moving 300 or 400 tons per day so soon as the tramway was finished. The new purchase, he had pleasure in stating would neither involve the making of a call—(applause)—nor an increase of capital. The company had a sufficiency of funds at command, without troubling the shareholders for a long time to come. (Applause.) The shareholders would, however, bear in mind that this was an Exploration Company—and he would not, therefore, say a call would never be made, and, indeed, if their coal trade became very large they would no doubt require some floating capital, but for the present, and, in fact, a considerable time to come, the shareholders might rest in peace upon that subject.

Another SHAREHOLDER said that in the course of his remarks the Chairman had mentioned the African Consolidated, and he judged favourably. Would the Chairman give any further information on the subject? He also asked if the statement he had seen in the public Press was correct—namely, that the African Coal Company's property was ten times that of the Transvaal Coal Trust and Cassel Coal Companies.

The CHAIRMAN remarked that these were matters rather outside the province of the meeting, and having no official connection with the African Consolidated or the other companies referred to he did not know that he could say much. It might, however, satisfy the shareholders to learn that they occasionally received information of other properties in South Africa than their own, and that all the accounts they had heard of the African Consolidated Company were of the most favourable character, and there was little doubt the concern would prove a highly successful and remunerative undertaking. He also said he understood the Cassel Company had about 4000 acres, and as the African Coal Company had 6000 the statement which had appeared in the papers was so far correct. (Applause.) He thought, however, the Transvaal Coal Trust's property was rather larger.

A cordial vote of thanks to the Chairman closed the proceedings.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

BAYLEY'S REWARD.—Messrs. W. H. Barker and Co., 8, Finch Lane, E.C., have received the following cable:—"Bayley's Reward reported as having struck a very rich body of ore, North shaft."

BROKEN HILL PROPRIETARY.—For the week ended the 17th inst. 9385 tons of ore were treated, yielding 806 tons of lead containing 211,216 ounces silver; also 1052 tons treated by amalgamation and leaching plants, producing 12,857 ounces silver.

CASHMAN'S BRILLIANT.—The secretary informs us that he has received a cablegram from the company's manager, stating that he has commenced work on the property.

CARLYLE GOLD.—The directors announce receipt of the following cablegram from the North Queensland Mines Agency (Limited), at Perth, Western Australia:—"Carlyle has placed in our possession a large body of ore; about to commence crushing; winding engine is wanted for sinking shaft."

CARMEN ALTO.—Eight tons silver-lead ore ex s.s. *America* at Genoa, assaying 222 ounces silver per ton 45 per cent. lead, realised net £201 19s. 4d.

EERSTELING EXPLORING.—Mr. Pegler cables that he has arrived on the property, and has commence a prospecting over the entire area.

EL CALLAO.—Messrs. Baring, Brothers and Co. (Limited), have received the following telegram from El Callao Mining Company:—"226·250 ounces of gold produced by El Callao Mine fort past fortnight, and 326·350 ounces by the Colombia Mine."

ELKHORN.—Bullion produced in the mill for the week ended January 19, 8400 ounces.

GOLCONDA.—The following cable has been received from mine manager:—"Have obtained lease Underlay; mine looking well." The secretary states that by this cablegram it is understood that the total area of the property is now 29 acres.

HAURAKI.—The directors have received the following telegram from the manager:—"The crosscut has reached the lode, and shows a body of ore 1 foot 7 inches wide, with specks of free visible gold. We are now opening up the same. We have crushed 5 cwts. of specimen stone, yielding 330 ounces of gold. Our profit, including tributors' percentage, is £1050."

IVANHOE.—Crushed 90 tons, 360 ounces gold.

LADY LOCH.—The following cable has just been received—"The main shaft is down 90 feet; the second shaft 30 feet, and the third 20 feet. The reef varies in width from 4 to 6 feet, and carries free gold throughout. We are nearing water."

NEW CHUM.—Perth, January 24:—"Crushings to date 2800 ounces. The mine is looking remarkably well."

NEW QUEEN.—The board has received the following cablegram, dated Charters Towers, January 19, giving result of crushing for past fortnight:—225 tons, yielding 315 ounces gold; shipped per ss. *India*, 1279 ounces gold. Note.—Cable delayed in transmission through interruption in lines.

OURO PRETO.—This company has received a cablegram from the mines, giving the return for the month of December as follows:—"3812 tons produced 39,414 equal 1267 ounces."

PAHANG CORPORATION.—The board has received the following cablegram giving the results for the month of December:—"In 25 days of 24 hours each 610 tons of stone were crushed, producing 45 tons of black tin. 20 head of stamps running. Working costs $11,250."

SIMMER AND JACK.—Last month's profit was £3300.

STAR OF THE EAST.—Messrs. W. H. Barker and Co have received the following cable, dated Perth, January 24:—"Star of the East crushings to date 9100 ounces."

TRENTON.—The following cable has been received by Messrs. W. H. Barker and Co.:—"Trenton crushing to date, 820 tons, 2850 ounces of gold."

UNITED MEXICAN.—San Cayetano: Gross returns for week ended January 12, $950; expenses, £1280; loss, $330.—El Cubo: Gross returns for week ended January 12, $5222; expenses, £7060; loss, $1838.

WEST AUSTRALIAN GOLD FIELDS.—The West Australian Gold Fields (Limited), who recently acquired the Mount Margaret Reward Claim, have now secured the adjoining claim, containing an extension of the reef, making the property nearly 50 acres in extent. Both properties have been purchased outright

CORRESPONDENCE.

**** We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.*

PRESSURE OF WATER.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—A matter relating to the above has lately attracted my attention, and, for the benefit of readers and miners in general, I will endeavour to point out what a serious error has existed for ages, and is still existing, in scientific formulæ for reckoning same. It is a usual thing to reckon ·433 lbs. per square inch per head of water in feet. This is right enough when applied to volumes of water of uniform dimensions, but not in any other case, and the exact pressure per square inch is ·433 lbs. per foot, and to prove this practically (but theoretically), I will take a volume of 3 inches in diameter and a head of 600 feet.

$\frac{3 \times 3 \times \cdot7854 \times 7200}{1728} \times 62\cdot4 = 1837\cdot836$ lbs. pressing on a base of $3 \times 3 \times \cdot7854 = 7\cdot0686$ square inches, and $\frac{1837\cdot836}{7\cdot0686} = 260$ lbs. pressure per square inch, and $\frac{260}{600} = \cdot433\dot{3}$ lbs. per head of water in feet.

In the next instance, just to prove that when the volume is uniform and the head of water the same—viz., 600 feet—that the pressure per square inch will be exactly the same, I will take a 9-inch volume to work upon.

$\frac{9 \times 9 \times \cdot7854 \times 7200}{1728} \times 62\cdot4 = 16{,}540\cdot524$ lbs. pressing on a base of $9 \times 9 \times \cdot7854 = 63\cdot6174$ square inches, and $\frac{16{,}540\cdot524}{63\cdot6174} = 260$ lbs. pressure per square inch.

A shaft 18 feet long, 600 feet deep, and 7 feet wide would just work out the same. It is quite easy to understand how this happens, for as the area and weight of water increases the area of base increases, and, according to Euclid and common sense, things that are equal to the same thing are equal to one another. Now, to prove the fallacy of accepting such formulæ in irregular volumes, or bodies, of water, I will take the same head, viz., 600 feet, but with a volume of varying dimensions. Firstly, I take a volume with a head 3 inches in diameter, and widening gradually out to 9 inches at base.

Euclid demonstrates that by taking half the weight of water on the two former examples, viz.:—

$\frac{1837\cdot836 + 16{,}540\cdot524}{2} = 9189\cdot18$ lbs.

pressing on a base of $9 \times 9 \times \cdot7854 = 63\cdot6174$ square inches and $\frac{9189\cdot18}{63\cdot6174} = 144\cdot4$ lbs. pressure per square inch.

Secondly, reverse the volume and make head 9 inches diameter and taper down to 3 inches diameter at base, and it resolves into a question of the same weight and head of water pressing on a much less area of base, therefore the pressure must be considerably greater, viz.:—

$\frac{9189\cdot18}{3 \times 3 \times \cdot7854} = \frac{9189\cdot18}{7\cdot0686} = 1300$ lbs. pressure per square inch.

Here is a clear and conclusive proof that the scientific formula, like many more in existence, is altogether insensible and inaccurate, as with the same head of water I have clearly shown three different pressures per square inch—viz., 260, 144·4, and 1300 lbs. respectively, which I defy any man in existence to uphold his formula against. Trusting the gentlemen—mining inspectors and mining engineers—in the North of England, who dared me to defend my views, will take a lesson from a young hand, I do not believe in any of the formulæ for water pressures, either still or moving bodies. Trusting this may be of service to the mining world, and asking you to kindly insert same in your next issue—Yours faithfully,

Whitehaven, January 17. I. B. ATKINSON.

FORTHCOMING MEETINGS.

**** We shall be obliged if Secretaries or other Officials of Mining, Railway and other Companies will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings whether statutory, semi-annual, annual, general or extraordinary, confirmatory or adjourned—in order that particulars may be announced for the benefit of our subscribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted at such meetings should, where possible, accompany the intimations of the meetings sent.*

Name of Company.	Place.	Nature of Meeting.	Date.	Time.
Austin Gold	Cannon Street	General	Jan. 28	12 noon
South African General Synd.	184, Gresh'm H.	General	Jan. 28	12 noon
Transvaal Mortgage	Cannon Street	General	Jan. 28	12 noon
Government Stock Invest.	Cannon Street	General	Jan. 28	2.0 p.m.
Transvaal Estates	Winchester Ho	General	Jan. 28	2.0 p.m.
Llonsdale Estates	Winchester Ho.	General	Jan. 30	11.0 a.m.
Jay Hawk	Winchester Ho.	O'n'l m'tg	Jan. 30	12 noon
Kanya Exploration	Winchester Ho	General	Jan. 30	12 noon
Abbott's Gold	Winchester Ho.	General	Jan. 30	12.30 p.m.
Graskop	Winchester Ho.	General	Jan. 30	2.0 p.m.
Bechuanaland Exploration	Cannon Street	General	Jan. 31	12 noon
United Rhodesia	Cannon Street	General	Jan. 31	2.0 p.m.
Matabele Reefs	Cannon Street	General	Feb. 1	12.30 p.m.

WAIHI GRAND JUNCTION SYNDICATE (LIMITED).—The statutory general meeting of this syndicate was held on Thursday, at Winchester House.—Mr. L. Welstead presided, and stated that the syndicate was formed to work two claims, one on each side of the Waihi Company's property, and to prospect, and endeavour to find, the Martha reef, which the company was now working. Their manager, Mr. Walker, had left on November 5 last, for New Zealand, and he was of opinion that he would be able to find the reef. The directors had decided to bore for the reef, and they had sent out with Mr. Walker the necessary boring machinery. As soon as they had found the reef, a shaft would be sunk, and they would crosscut, so as to make sure they had found the Martha lode, and thus they had substantial prospects on which to form a company afterwards. The financial position of the syndicate at the present time was as follows:—They had £313 in hand, and they had invested £1500 in Consols. The total amount received in respect of the 10s. call was £3750, and the total expenditure was £1937, and out of that, £450 had been sent to New Zealand to pay the rent of the claims they were working, and also to protect the property.—A vote of thanks to the Chairman closed the meeting.

MOUNT DRYSDALE MINE, N.S.W.—A dispatch from Sydney states that 40 tons from the Mount Drysdale Mine has yielded 400 ounces of gold. The mine is looking as well as ever. The formation is fully 7 feet wide.

South African Trust and Finance Company.

A circular to the following effect has been sent to the shareholders in the South African Trust and Finance Company by the secretary:—I am instructed to inform you that the directors of this company have entered into a provisional arrangement for the sale of all the assets, goodwill, and undertaking of this company to the Johannesburg Consolidated Investment Company (Limited) on the following terms:—£345,000 in cash. Shareholders of this company to have the option to subscribe for 138,000 of £1 each of the Johannesburg Consolidated Investment Company (Limited) at £2 10s. per share. The Johannesburg Consolidated Investment Company (Limited) assumes all this company's liabilities and pay costs of liquidation. The above-mented purchase price is calculated on the basis that the whole capital of the company—viz., 499,700 ordinary shares (10s. per share paid), and 300 founder's shares, will have been issued. A meeting of shareholders will be called at an early date to submit the agreement to shareholders for ratification."

— We are informed that the share certificates of the LADY LOCH GOLD MINE (LIMITED) will be ready on Wednesday next, on or after which day they may be exchanged for bankers' receipts.

— The MOUNT LYELL MINING AND RAILWAY COMPANY (LIMITED) notifies that a London register of shareholders has been opened at its office, 138, Leadenhall-street, and that share certificates will now be received for the purpose of transfer from the Melbourne register.

THE GLASGOW HERALD
(ESTABLISHED 1782)
IS THE
LARGEST & LEADING ADVERTISING MEDIUM
OUT OF LONDON.
It is next to *The Times* and *The Daily Telegraph*, each of which it exceeds in extent of Advertising during several months of the year. It is unrivalled among Daily Papers for the completeness of its Reports of the Mining and Metal Markets, besides Commercial and General News for all classes of the community.
HEAD OFFICES: 65-69, BUCHANAN STREET, GLASGOW
LONDON OFFICES: 65 FLEET STREET.

The SCIENTIFIC PUBLISHING CO.,
(OF NEW YORK and LONDON.)
20, BUCKLERSBURY, LONDON, E.C.

MODERN AMERICAN METHODS OF COPPER SMELTING. By Dr. E. D. PETERS. 8xth Edition, 1894. Price, 25s. Full of specially prepared illustrations of modern plants and processes.
"The book is full of information and devoid of the ordinary text-book objections; it bears throughout the stamp of having been written by a practical man thoroughly up in his subject. No metallurgist should be without it for purposes of information and reference."—*Engineering.*

THE METALLURGY OF LEAD and the DESILVERIZATION OF BASE BULLION. By Dr. H. O. HOFMAN. Third Edition, 1893. Price 30s. Containing 275 illustrations taken from working drawings of the most modern plants.
"As a complete epitome of recent practice in lead smelting, the book will be gladly welcomed by the whole metallurgical world."—*Industries.*

THE METALLURGY OF STEEL. By HENRY M. HOWE, A.M., S.B. Third Edition, 1894. Price, 50s.
"The work itself is simply enormous, unmatched in its minute and thorough-going comprehensiveness."—*Chemical News.*
"We cannot refrain from most urgently recommending the study of this hyper-eminent work to our readers."—*Stahl und Eisen.*

THE MINERAL INDUSTRY: Its Statistics, Technology and Trade; being the Annual Statistical Supplement of *The Engineering and Mining Journal*. Vol. I. from the earliest times up to the end of 1892, 12s. 6d. Vol. II. up to the end of 1893, 25s.
"The spirited policy of *The Engineering and Mining Journal* annot be too greatly praised or its example too soon followed. Their enterprise in publishing this statistical volume, which also de ails up to date the progress made in all branches of metallurgy and mining, is worthy of the fullest recognition and encouragement."—*From Professor A. K. Huntington's Presidential Address, to the Institution of Mining and Metallurgy, London, March 21st, 1894.*

A Complete Catalogue of the Company's Publications will be sent free on Application.

THE
HUMBOLDT ENGINEERING WORKS Co.,
KALK, near COLOGNE. MAKERS OF
MINING, ORE DRESSING & COAL WASHING MACHINERY.
COMPLETE PLANTS ALREADY SUPPLIED OF CAPACITIES UP TO 2000 TONS IN 10 HOURS.
REDUCING MACHINERY PATENT LINKENBACH TABLES, for enriching Slimes & Sands.
STAMP BATTERIES, SCREENS AND TROMMELS.

WINDING AND PUMPING ENGINES AND PLANT of all sizes.
PATENT CHAIN HAULAGE, CONVEYORS, AND ELEVATORS of all kinds.
ROCK DRILLS AIR COMPRESSORS

C. PASS & SON (Limited), BRISTOL,
ARE BUYERS OF
LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c.
and DROSS or ORES containing
TIN, COPPER, LEAD, AND ANTIMONY.

LAMBERT'S WHARFAGE CO.,
PRINCE OF WALES DOCK, SWANSEA.
Ores, Mattes, Regulus, and Bars received and prepared for market.
Copper, Lead, Tin, Spelter, and Pig Iron Received, Weighed, and Sampled, and Warrants issued against same.
N.B.—Warrants are on accepted list of London Metal Exchange.
Regular lines of steamers from America, Europe, &c.
Consign goods to Lambert's Cranes, Prince of Wales Dock, Swansea.

PACIFIC MINING AGENCY AND TRUST COMPANY.
A Corporation organised under the Laws of the State of California
CAPITAL STOCK, £50,000.
BOARD.
IRWIN C. STUMP (Chairman) Manager of the Estate of the late U.S. Senator Hearst.
IRVING M. SCOTT, Manager Union Iron Works.
JACOB H. NEFF, President California Miners' Association.
P. N. LILIENTHAL, Manager Anglo-California Bank (Limited).
W. F. GOAD, Vice-President, Wells, Fargo, and Co.
D. M. BURNS, Capitalist.
R. C. CHAMBERS, Manager Ontario Mine, Utah.
WILLIAM C. RALSTON, Secretary (Secretary California Miners Association).
BANKERS—The ANGLO-CALIFORNIAN BANK (Limited).
HEAD OFFICE — MILLS BUILDING, SAN FRANCISCO, CAL.

THIS COMPANY sells Mines, Mining Claims, Ditch Properties, and Water Rights ON COMMISSION, and will act as Agent and Broker for the Sale and Purchase of such Properties.
It is intended to conduct the Purchase and Sale of Mining Claims, Ditch Properties, and Water Rights on the same basis as a real estate transaction.
The Company is prohibited by its Articles of Incorporation from buying or selling on its own behalf, or except upon commission, or as agent or factor for others.
The buyer pays no fees whatever, and there is no incentive to advance the price beyond the original figures at which the price and commission have been agreed upon with the seller.
It is not intended only to negotiate the sale of an entire property but interests in such may be sold or money obtained for development work.
This Company especially solicits the business of making reports or examinations for non-resident mine owners on any of their mines in the United States, and obtaining special information as to their condition and so forth (said reports being confidential).
Those who conduct the business of the Company have had long experience in mining operations, and it is their intention to place the Company in a position to inspire the confidence of all who seek its assistance in its integrity and fair dealing.
We respectfully refer to any Bank in the City of San Francisco and to the Anglo-Californian Bank (Limited), London, as to the standing of the Board of Directors of this Company.
Descriptions of properties for sale with maps, reports and all necessary information, are left on file in the office of the Company. Abstracts of such reports with prices of mines will be furnished pon application.
California has produced £267,000,000 in gold, and is still producing £2,680,000 a year. There are thousands of claims requiring capital for development. In other Pacific Coast States and Territories there are abundant opportunities for investment in mines of gold, silver, copper, lead, coal, and so forth. Information concerning these will be furnished by this Company on application.
This Company will also furnish competent engineers, superintendents, foremen, miners, millmen, assayers and others connected with the mining industry on application, furnishing their references and so forth.—Cable Address, "CHAPIN," San Francisco.

THE BUTE WORKS SUPPLY COMPANY, CARDIFF.
Telephone: No, 45 (Post Office and National).
Telegrams: Gething, Cardiff.
WAGONS.—New to Latest Regulations, 50 with one end two Side and two Bottom Doors, Wheels with WROUGHT Bosses, large capacity (12 inches longer and 4 inches deeper than usual), ready for Lettering. New to Latest Regulations, one end and two side doors, sides and ends 3 inch red deals, all inside underframe timbers of English oak; delivery, about 15 per week, commencing forthwith. 50 End Tip 10-ton Coal Wagons to New Regulations, equal to new, prompt delivery.
LOCOMOTIVES.—One good second-hand Saddle Tank Loco. six wheels coupled, ready for instant work, and cheap for cash or three years' purchase-lease. 14 inch cylinders, by Avonside Engine Company, now near Cardiff.
RAILS.—Bridge, 14 to 120 lbs. per yard; Flange, 10 to 100 lbs. per yard; Double Head, 30 to 82 lbs. per yard; and Bull Head, 50 to 96 lbs. per yard.
SLEEPERS.—Wood, Iron, and Steel. A quantity of Metre Gauge Steel Sleepers for Sale, Cheap. 1400 new Baltic redwood sawn rectangulars, 8 feet by 8 inches by 4 inches at 1s. 3d. each net f.o.t. Cardiff.
PORTABLE RAILWAY.—£9 18s. 9d. per 100 Yards of Railway (Steel Rails, 14 lbs. per yard, and Iron Sleepers), complete.
EARTH WAGONS.—75 side tipping 30-inch gauge, STEEL wheels and STEEL axles, £5 each, f.o.t. Cardiff.
BRICKS.—Fire and building bricks, also clay.

WE are instructed by the **MOUNT LYELL MINING and RAILWAY COMPANY (LIMITED)**, of Tasmania, to **INVITE TENDERS** from
SMELTERS or their AGENTS
for the undermentioned parcels of RICH ARGENTIFEROUS COPPER ORE lying at Messrs. Richardson and Co.'s Ore Wharves, Swansea, and we shall be glad to forward sealed samples of the various lots on application.
Tenders must be lodged at this Office not later than 2 p.m. on Wednesday, the 6th of February, 1895, stating the price per ton of 20 cwts. (dry weight) for each lot of the Ore, including Copper, Silver, and Gold contents, without any draft or deductions whatever. Moisture, if any, to be taken at the time of delivery.
The Ore to be packed and taken from the Wharf on Warehouse Weights by the Buyers, at their risk and expense, within seven days after the Sale.
Payment to be made by good and approved Bills at two months date, or in Cash, less Discount, at Sellers' option.
Should two or more Buyers offer the same price, such being the highest price, the ore to be equally divided between them.
It is intended to accept the highest Tender, but we reserve to ourselves the right of declining to sell.
VIVIAN, YOUNGER, and BOND,
117, LEADENHALL STREET, LONDON, E.C.
The particulars are as follows:—

		Tons.	cwts.	qrs.
ex "Oceana" (s)	Lot 1 weighing about	3	5	0
	„ 2 „ „	3	5	0
	„ 3 „	3	5	0
	„ 4 „ „	3	5	0

HENRY WIGGIN & CO. (Limited),
NICKEL AND COBALT REFINERS,
MAKERS OF BEST RED LEAD FOR FLINT GLASS MANUFACTURERS,
BIRMINGHAM.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE:
An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates

ALL OVER THE WORLD,

Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical, Railway and Mechanical Engineers, Railway Administrators, Manufacturers, &c., &c.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE has correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan; and its literary scope embraces the entire field indicated by its title. The International Exhibition of Mining and Metallurgy, Crystal Palace, 1890, and the Institution of Mining and Metallurgy, London, were initiated and established by the efforts of THE MINING JOURNAL.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing literary contributions should be addressed to "THE EDITOR." All matter intended for insertion must be written on *one side of the paper only*. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.

TO SUBSCRIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage to any part of the United Kingdom, is £1 4s. Abroad, £1 8s. payable half-yearly in advance. It can be purchased at all Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.

TO ADVERTISERS.—The following is an abbreviated Scale of Charges for Advertising:—Companies' Prospectuses, £12 12s per column, or £20 per page; Companies' or Legal Announcements, 9d. per line, with a Minimum charge of 7s. 6d; Sales by Auction, Publications, For Sale, Wanted, &c., &c., 3d. per line with a Minimum charge of 4s.

Displayed (Trade) Advertisements of 2 inches in depth (or more), Single Column measure, will be inserted at the following rates:—For 52 insertions 2s. 6d. per insertion for each inch in depth; for 26 insertions 3s. per insertion for each inch in depth; for 13 insertions 3s. 6d. per insertion for each inch in depth. Terms for special positions and contracts may be had on application.

*** ADVERTISEMENTS (which should in all cases be sent direct to THE MANAGER) can now be received for the forthcoming issue of THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C., until 9 p.m.

*** THE MINING JOURNAL, is neither controlled, nor is any interest in it held or exercised, by any mine owner, speculator or syndicate, and it is in no way connected with any share dealing agency. The position occupied and the views expressed by it are alike absolutely independent.

Editorial and Advertisement Offices:
18, FINCH LANE, LONDON, E.C.
Telegraphic and Cablegraphic Address: "TUTWORK, LONDON."
Codes used: "A.B.C.," Moreing's, and "Universal."

CONTENTS
Of this Number of "The Mining Journal, Railway and Commercial Gazette." January 26, 1895.

NEW PATENTS	89
CONTRACTS OPEN	89
ANSWERS TO CORRESPONDENTS	89
HISTORY OF THE HOLMBUSH, REDMOOR & KELLY BRAY MINES	90
KNIGHT'S WITWATERSRAND MINES	90
GOLD MINING & MILLING IN THE BLACK HILLS OF DAKOTA	91
MEETINGS OF MINING COMPANIES—	
Consolidated Gold Mines of Western Australia; Exploring Com.	93
Mosman Gold; Gold Estates (Transvaal) Company	94
Emerald Gold; Transvaal Gold Exploration and Land	95
Gold Fields of Mysore; South African Gold; Umtoli Gold	96
White Feather "Reward" Claim; Wheal Basset	97
Londonderry Gold; African Coal	98
LATEST FROM THE MINES; Cablegrams and Telegrams	99
CORRESPONDENCE	99
FORTHCOMING MEETINGS	99
LEADING ARTICLES—	
Dry Concentration	100
Continental Capital in Mining	101
NOTES AND COMMENTS	101
THE MINING MARKET	102
THE METAL MARKETS—	
The London Metal Market	103
"THE MINING JOURNAL" SHARE LIST	104-105
MINING IN CORNWALL AND DEVON	105
THE MINERAL WEALTH OF SIBERIA: ITS GOLD PRODUCTION	106
NEW ISSUES	106
COLON GOLD MINES (LIMITED)	107
STAR OF THE EAST GOLD MINING COMPANY (LIMITED)	107
REPORTS FROM THE MINES	107
PROVINCIAL SHARE MARKETS	110
MINING NOTES FROM JOHANNESBURG	112
ADVERTISEMENTS—(*See Index to Trade Advertisements, p. 86*).	

LONDON: JANUARY 26, 1895.

DRY CONCENTRATION.

DURING the past year we have written frequently upon the subject of coarse and fine concentration by the well-known and almost universal wet process, and, doubtless, this system will always be adopted wherever there is sufficient water for its operation. But many rich mineral deposits have been discovered where water does not exist, or only, perhaps, in such small quantities as to barely suffice for the needs of the population, and so for many years the attention of inventors has been turned towards the discovery of some method by means of which the ores could be concentrated without the use of water. The common agricultural process of winnowing the chaff from the grain suggested at an early date the possibility of blowing away in a similar manner the light gangue from the heavier ore, after the whole had been reduced to a state of dry powder. We have before us at this moment a small machine made for the purpose of carrying out this principle, and closely resembling the well-known winnowing machines of the farmer in appearance. It consists of a small rotary fan driven by hand-power, the air current from which impinges against a sloping frame, covered with fine muslin, and crossed horizontally by several wire riffle bars. The powdered ore is fed on to this frame from a small hopper, and, as it descends, the lighter particles are blown away in a cloud of dust, while the heavier are retained by their own gravity and the riffle bars. In the hands of a skilful operator, and with carefully classified and dry ore, we have seen some astonishing experiments carried out with this little machine, which is manufactured by the Tierra Seca Company; but, like the well-known operation of panning by the wet process, a certain amount of training is necessary before the knack of conducting the operation rightly and accurately is acquired. Larger machines of the winnowing type, and even pneumatic jiggers, have been constructed, to which we shall refer later on, passing now to the consideration of another system of dry concentration based upon the combined operation of three forces—centrifugal force, gravity, and atmospheric resistance—and known as the Clarkson-Stanfield process.

The experiment, which is the basis of this system, can be performed by anyone in possession of a marble and a bullet, or, in fact, of any two objects of different weights, but of the same size. If these are taken together in the hand, and thrown at an angle of about 45°, it will be found that the marble will fall to the earth first, and that the bullet will carry furthest; in short, that they will be separated from each other. Substitute particles of mineral for the bullet and particles of gangue for the marble, and what is then wanted is a machine which will hurl them forwards simultaneously, and collect them as they fall apart from each other, taking advantage of the fact that, provided the particles are approximately of the same size, those of lower specific gravity will be sooner overcome by atmospheric resistance, and fall short, being collected in one compartment of a suitable receiver, while those of a higher specific gravity will be thrown further, and fall into a separate compartment. The machine which, after numerous experiments, has been evolved to carry out the above principles, is known as the Clarkson-Stanfield dry concentrator, and, as it is frequently illustrated in our advertisement columns, our readers are, perhaps, familiar with its outward appearance. It consists of a vertical rotating spindle carrying a circular disc called the distributor, upon which the dry and classified material is fed. This disc is grooved with a number of radial channels, long in proportion to their width, and on it there fits closely a solid cover. Surrounding this distributor and a few inches below its level is an annular receiver, divided into various compartments. The greatest diameter of this receiver may be, in the large machines, from 8 to 12 feet, and the number of concentric rings, by means of which it is divided into annular compartments, can be varied according to the nature of the ore to be treated and the grade of concentrates desired. The ore to be concentrated is stored in a series of hoppers, placed above the level of the distributor, each grade of ore occupying a separate hopper, and being stored in it until a sufficient quantity has accumulated to run on to the accumulator. When a hopper contains sufficient ore to be treated, the speed of the distributor is adjusted for this grade, and the ore allowed to flow into the distributor, from the radial openings of which it is discharged in an umbrella-shaped stream. The rich heavy particles are projected into the outer concentric rings of the receiver, and the lighter ones into the inner ones, according to their relative specific gravities, while the steriles fall close to the distributor, being aided by a strong downward current of air, produced by the motion of a fan below, which also carries them off for discharge on to the waste heaps.

The three conditions essential to success are that the mineral is dry; that the crushing operation has been conducted with a view to granulation rather than pulverisation; and that the sizing or classification is accurate. Dryness of mineral is an immaterial point in wet concentration, and, as being a new feature, is apt to strike one as being difficult of attainment. This, however, is really not so, for with most minerals coming from an ordinary mine, with not too much water the moisture is present only as a thin exterior coating, and does not permeate the block as though it were a sponge. All that is required is to reduce the total moisture below (say) 5 per cent., and this in hot climates is effected by simply exposing the mineral to the atmosphere, and in most cases by tipping it into a bin, having its bottom constructed of iron bars like a grizzly, in such a manner that the warm air from a furnace placed below may penetrate the mass of ore and so dry it. The crushing of the ore is usually effected first with Blake crushers, and afterwards with Krom rolls, with classification after each crushing, in order that particles already fine enough may not by subsequent crushing be reduced to powder. What is wanted, both for this dry concentration process, as well as for the cyanide process, is clean sharp sand, and not dust, which, in the one case, is difficult to concentrate, and, in the other, prevents the percolation of the solvent in the leaching tanks. Our readers will remember that we insisted upon careful classification as essential to the success of wet concentration. It is still more essential in the dry process, and although at first a somewhat complicated machine was used for that purpose, it is now effected partly by trommels and partly by means of vibrating sieves into (say) six sizes—viz., 40—50, 60—70, 85 and 100 mesh, each grade being stored in a separate bin and treated separately by the machine, the speed being varied for each size, and this can be effected by means of a speed regulator without stopping the concentrator.

Lastly, a few words as to the results obtained by this machine which has been tried successfully upon a large variety of ores, one of the most difficult being from the Broken Hill district where the sulphides of lead and zinc carrying silver are so intimately associated that the whole of the ore must be pulverised before concentration can be effected. Space will not allow of our giving a full description of the experiments, and we will only quote those made with the smallest and the largest meshes respectively. The original ore contained lead 22·30 per cent., zinc 19·70 per cent., silver 12·62 ounces per ton, and the trials were made with ores graded to 50—60, 60—70, 70—90,

and 90—120 mesh. The following tables show the results of the trials made with the 50—60 and 90—120 mesh ore:—

II. Mesh 50—60

Compartment.	Per cent. of weight.	Assay. Lead per cent.	Zinc per cent.	Silver ozt. per ton.
1	8·32	79·75	2·14	29 27
2	14·67	72·40	6·25	31·23
3	16 50	42·60	23·84	20 57
4	21·75	7·28	35·60	6·53
5	19·75	2·73	33·00	4 25
6	13·00	0·69	16·81	2·94
7	6 01	0 00	10·35	2·94

VI. Mesh 90—120

1	13·00	83·25	1·16	31·22
2	12·50	75·85	3·58	33 27
3	14·00	64·50	15·40	26·78
4	18·50	25·35	29·05	14·37
5	23·00	5 33	33 28	4 90
6	14·00	0 86	23·62	2·28
7	5·00	0·21	14·67	2 28

The above figures speak for themselves, and we will now take the case of the low grade gold ore, averaging about 3½ dwts. per ton, obtained at the Carn Dochan Mine in North Wales, where dry concentration plant on the Clarkson-Stanfield system has been erected and at work for some time. The ore is crushed to a 30-mesh, and passing direct to the concentrator is divided into first and second concentrates and tailings. The latter contain only a trace of gold, the second assays about 50 ounces and the first about 25 ounces of gold per ton. It seems to us that there is a large field open for a machine of this sort, not only alone as a concentrator, but in conjunction with the cyanide process, for first of all removing the coarse gold which, is detrimental to the working of that method. We understand that successful experiments have already been made with this object in view, the concentrator removing 32 per cent. of the gold contents in the form of concentrates, assaying 58 ounces per ton, while from 95 to 100 per cent. of the balance was recovered by means of the cyanide process.

CONTINENTAL CAPITAL IN MINING.

THE striking feature of the recent boom in gold mining shares has been the large part played in the matter by Continental, and especially French, shareholders. It is the introduction of this outside element which has had the chief effect in producing the extraordinary rise in South African shares. Buyers have been found for such values as far east as Asia Minor, and as far west as New York. It would seem as if capital in every part of the civilised world was suffering from a famine of acceptable speculations, and had all sought the same resource. Berlin and the other markets have, however, as yet hardly advanced beyond the point of buying shares which have already been accepted as first-class values in London, their willingness to this end being no doubt largely inspired by the glowing reports that have lately been published as to the prospects of the Witwatersrand by several Government geologists. Paris, however, has gone far beyond this. Originally starting its connection with South African gold mining shares through the Banque de Paris et des Pays Bas, and, in association with M. J. B. ROBINSON, the Rand millionaire, the gold mining fever seems now to have absorbed all the leading lights of *la haute finance* in the French capital. The Credit Lyonnais, which may be regarded as the chief private bank in France, has sent out two emissaries to the Transvaal, and is about to open offices in Johannesburg, whilst other great financial institutions are also represented on the Rand. There is, besides, quite a considerable number of private syndicates operating in Paris for the acquisition of shares in gold mining companies or the provision of capital in new undertakings. One of the London syndicates, which has bought up mining claims in Matabeleland, is reported to have recently sold some portion of its property to French capitalists for £100,000. French support has been relied upon for all the new companies to undertake mining enterprise in Rhodesia which have lately been floated. Not only have Parisian financiers bought largely of the Witwatersrand mines, and sold them at heavy profits to the French public, but they are now speculating with all the national dash in second-rate and even third-rate companies. It must be said of them that, in most cases, they have managed to secure practical control at prices which, though large, compare favourably with the transactions carried through in the earlier days of the South African mines. Heavy purchases of claims have been made from the British South Africa Company on behalf of French capitalists, and we hear that steps are being taken to secure the acquirement by Parisian money of the new coal deposit in the Transvaal. This increased participation of foreign capital in the ventures of English enterprise must be accounted one of the most promising factors in the present favourable outlook of the Money Market. This widening of the purchasing area for their shares will, no doubt, be an excellent thing for British shareholders; while it must materially assist the expansion of the mining industry in different parts of the world. One remarkable feature of the movement is, that, in face of British mining enterprise, it assumes the aspect of co-operation, not of rivalry. The fact is, that the French speculator or investor does not now put much trust in the skill or good faith of his own financiers, and he does not look favourably upon a new enterprise unless it is carried out under British management. Hence all the transactions we have referred to leave the control of the British element untouched. The French capitalists are simply willing to pay for the privilege of assisting to provide the capital. So far as South Africa is concerned, this new element must do a good deal to clear away the difficulties of mining enterprise that are often created by international jealousies. With strong monetary interests identical in both nations we may expect less opposition of the French in the progress of our system of African development by joint-stock companies. Later on, no doubt, this Continental assistance will extend to other parts of the world.

NOTES AND COMMENTS.

THE statutory meeting of the Consolidated Gold Mines of Western Australia (Limited), held at Glasgow, was enthusiastic and successful. The Chairman, Colonel Henderson, delivered a long and very interesting speech, and was followed by Mr. Albert F. Calvert, who likewise spoke at considerable length. As yet, the directors were unable to lay any definite information before the shareholders respecting what progress has been made, but, finding directions from indirections, it seems pretty conclusive that things are going along smoothly at the present time. What was virtually new and unlooked for was the information that the directors have succeeded in obtaining for the company an allotment of 10,000 fully-paid shares, of the nominal value of £1 each, in another mining property in the same district, and 2500 shares in another adjacent mine. For this stroke of business the Chairman assured the shareholders they were indebted to Mr. Calvert. But this is not all, for the Chairman thinks it extremely probable that the directors will acquire in another company a holding of something like 20,000 shares. This was practically the most reassuring section of the Chairman's speech, seeing that it has been impossible to obtain as yet any report from the new manager upon the mine itself. This will be awaited with great interest. In the meanwhile, Mr. Calvert's optimistic address will make a large number feel confident as to the future of the company.

THE gold returns of Western Australia for the month of November are certainly gratifying, if not eminently satisfactory. The output is, of course, nothing in comparison with that of the Rand, but that was to be expected. The question is: "Will it ever grow to such dimensions?" and no answer can be given. Still, considering the youth of the field, an output of 23,628 ounces in one month is not to be ridiculed. Coolgardie, naturally, is the largest producer, with 14,633 ounces, whilst the Murchison comes second with 7366 ounces. In the case of the latter field, this output, considering the little work that has been done, and the small quantity of stone that has been crushed, is still more gratifying, and it has really surprised a great many who have a high opinion of Western Australia generally. In this connection it is interesting to hear what a well-known American expert thinks of the West Australian gold fields. This gentleman visited the colony recently, and gave it as his opinion, that Bayley's Reward was a "good honest show," the richness of which has not been over-rated. The Londonderry, he fancies, "is a rich patch, and a patch only." The cost of crushing at the Reward is very heavy—£1 per ton being the charge for water alone; and the work of developing the mine takes "barrels of money." "This," he points out, "is where miners and those who take up leases, and get a promising indication, make a mistake. They get a few tons of stone from or near the surface, which, perhaps, gives 2 or 3 ounces of gold. Then they expect the public to come in and buy their unexplored, undeveloped properties at prices which would make a Mormon turn pale. The owner of a 6 or 12 acre lease, without machinery of any kind, without water, and nothing beyond a hole down 30 or 40 feet, opens his mouth as wide as a Mississippi alligator, and that kills business right away. Mind you, the capitalist has never yet made a gold field. The hard-working miners who delve away in the bowels of the earth are the men who make the country." And he has about hit the nail on the head.

MR. WARNFORD LOCK'S paper on "Gold Mining and Milling in the Black Hills," was of a kind to preserve unbroken the continuity of excellence which has hitherto characterised the contributions to the transactions of the Institute of Mining and Metallurgy. It was a significant fact that his critics confined themselves mainly to the purpose of eliciting further information from him, and seemed to rely upon the substantial value of the issues presented, as, indeed, they could hardly fail to do. Whatever regrets may be urged that additional ground remained uncovered, there is sufficient justification for the scientific bent given to the paper by the suggestions of the Council, cited by the author in his defence. Much of the ground which Mr. Lock traversed is covered with intricate problems as to mineral origins, still involved in the mists of obscurity, and it is only by the united efforts of the members of the profession that these delicate and important questions can be settled with anything like finality. Well it would be, therefore, if Mr. Lock's example were generally followed. The theories of mineral origin would thus be illumined by the light of a large gathering of additional data, and in the result a good many matters which are now more than doubtful might be resolved into the usual scientific status of approximate certainty. As it is, the transactions are of an interest and value to make them almost indispensable to the mining engineer.

THE end of the American tin-plate strike is an event which cannot but have an important bearing on the tin market. If the cabled accounts be correct the termination of the struggle means the resumption of work by 10,000 operatives. The output of this labour divided over the 40 firms now registered as making tin-plates in America will mean an immediate considerable expansion of consumption of the parent metal, and constitutes a feature which cannot be overlooked by the market on this side. If, as is expected, the American manufacturers set themselves to run up a make of nearly 3,000,000 boxes this year, it can be easily seen how considerable will be the effect upon available tin supplies. For fully three months past the American mills have been taking in very little tin, since the labour dispute, which has now terminated, has existed all that time. Although attempts have been made in different parts of the country to rule the mills with non-Union labour, these efforts have met with very little success, and native production has been at a low ebb. Now, however, the works are to start up again at a reduction of from 12½ to 15 per cent. in wages, and tin will be in proportionately increased demand. There is reason to believe that, while the settlement now announced has come somewhat as a surprise, the termination has been hastened by the wages reductions—ranging from 10 to 12½ per cent.—that have been brought about at some of the Welsh works. It will be noticed that the amount of revision accepted in both countries is very similar, and, beyond the least question, the American masters have been pressing the concessions in Wales as a reason for concluding the wages trouble in their own midst.

THE November statistics of output and recovery show that Gympie will continue for some time to hold her own among the more important mining centres. Output, assays, and dividends were all higher during the first 11 months of last year than for the corresponding period of the preceding year. This was largely due to the commencement of operations upon several new ventures; but, in addition, it may be presumed that a higher pitch of development and a near perfection of working have been largely contributing causes. Thus the jubilation of the Gympieites is at once justified and explained, and one of the forms it has taken is a proposal for the establishment of a School of Mines in the midst of this successful district. Local enthusiasts have asserted that of all places in the colony Gympie is most suited to be the site of such an educational establishment. Studying amid a group of successful gold mines the mineralogical neophytes will have every facility for practical as well as theoretical training, and the objection frequently taken to sending young professional men fresh from Mr. Le Neve Foster's lectures to positions of responsibility underground will not apply in that locality.

THE tables issued by the Board of Trade showing the coal production, consumption, and number of persons employed in the principal countries of the world for each year from 1883 to 1893, is extremely interesting. After the United Kingdom the country which has the largest output of coal is Germany, but the quantity produced is not half of that produced in our own islands. After Germany comes France, which only produces a third of what comes from the former place. Fourth on the list is Belgium, whose production is but slightly less than that of France. The average value of the coal produced, taken at the pit's mouth, compares, as regards the United Kingdom and Germany, in a very singular way. Thus, the average value at the pit's mouth in the United Kingdom in 1891 was 8s. per ton; in 1892, it was 7s. 3½d.; and in 1893, 6s. 9½d., while in Germany the average value was identical in 1891, 7s. 4½d. in 1892, and 6s. 9d. in 1893. These results are, indeed, curiously approximate, but when they are compared with those of France and Belgium they become the more remarkable. In France it will be observed that the average value at the pit's mouth was in 1890, 9s. 7d.; in 1891, 10s. 8d.; and in 1892, 9s. 11½d., whilst in Belgium it was in 1890, 10s. 6½d.; in 1891, 10s. 0¾d.; in 1892, 8s. 2¾d.; and in 1893, 7s. 5¾d., but whether or not these latter were at the pit's mouth does not appear from the returns received. Taking them to be so, however, as is probably the case, it will be seen that the value of coal worked at the place of production—certainly in France, and probably in Belgium also—is far higher than it is in either the United Kingdom or Germany. There is one other country, however, with which it is necessary to compare the output with that in European countries—namely, the United States. In the latter country the quantity of coal produced has in recent years increased very considerably, until it now almost equals that of this country. In the earlier years (1883-85) the average output of the United States was 104,000,000 tons; in the latter years (1891-93) it was 158,000,000 tons. During the same period the average value at the pit's mouth, which in the earlier years was 6s. 3d., fell in the last years to 5s. 4d., which was a much lower figure than in the United Kingdom or in Germany, and not much above half what it was in France and in Belgium during the same period.

WITH regard to the number of persons employed in the coal mining industry, it will be seen that by far the largest number is employed in the United Kingdom. With respect to the consumption of coal in each country, this has been arrived at for the purpose of the present tables by adding the imports and deducting the exports of coal in each case to or from the home production. The exporting countries are the United Kingdom, Germany, Belgium, and, to a very small extent, the United States; while the importing countries are Russia, Sweden, France, Spain, Italy, and Austro-Hungary. The question of the exports of coal from each country is superficially complicated by the fact that it is impossible in many instances to ascertain definitely the procedure in each case with regard to what is called "bunker coal." In the United Kingdom, and in France also, all coal for the use of steamers engaged in the foreign trade is, in these tables, included in the exports, while coal for the use of steamers engaged in the home, or coasting, trade is excluded; but whether the same course is pursued in other countries it is not possible to state. The point, however, does not seem material in a comparison of the consumption of coal in different countries. As regards the consumption of coal per head of population, as might be expected, the highest proportion is found in those countries where steam traction is mostly in use, such as the United Kingdom and the United States, and the lowest in those countries where steam traction is, comparatively speaking, but little used, such as Russia and Austria. In France the consumption of coal per head of population, for a country so far advanced in civilisation, appears at first sight to be very small, but this may be accounted for in a great measure by the large quantity of fuel

of other sorts, such as turf, wood, and lignite, which are all extensively used in that country.

THE MINING MARKET.

FRIDAY EVENING.

An unfavourable commencement.—Flatness all over the market.—Chartered off colour.—A general improvement later in the week.—Markets close hopefully.

WEAKNESS and strength—the opening and closing features—have contrasted themselves sharply in the Mining Market this week. There was an unfavourable opening on Monday. Saturday's reaction continued without any palliation, and the prices moved down in groups. A fit of nervousness appears to have spread itself throughout the Continent, and large blocks of selling orders came in for execution during the day. Land shares led off and Deep Levels followed, losses in all cases being general and fairly considerable in extent. West Australian shares were in a variable humour, and the rises and falls about balanced each other. There seemed grounds for the apprehension that the weakness would continue indefinitely, but shortly after the commencement of operations on Tuesday business went into more favourable grooves. A general feeling prevailed that the recessions of the previous day had been of a greater breadth than circumstances warranted, and, in the consequence, an improvement became general. Land shares—Chartered especially—participated in the better tone prevailing, while stronger and more sustained movements occurred in Westralians and Miscellaneous. A satisfactory continuance of the improvements in South African shares occurred on Wednesday, and a recommencement of general buying brought the markets into a more hopeful condition than they have been since the settlement. Land shares participated to the full extent in the improved condition of affairs. West Australians remained quiet, but firm, and the Miscellaneous market was in a distinctly stronger state, after the shake-out of the week-kneed. Throughout Thursday it became evident that the late weakness of the market had been more than recovered, and brokers began to look forward to a long period of steady transactions in the immediate future. South Africans and Miscellaneous shares were busy, and favourably affected, while, although there was but little doing in West Australians, there were no considerable recessions. Chartered, in the Land Section were, as usual, conspicuous by a variety of different movements, terminating, however, in good quotations. Unless the almost unanimous opinion of men upon 'Change is belied, the new account commencement next week will mark the inauguration of a very favourable period.

South African Shares.

Saturday's reaction deepened and intensified in the South African Market on Monday. The widespread tendency to sell was hailed by some, however, as a hopeful sight, there being a general sacrifice of the weaker "bulls." Nourse Deep lost ⅝ to 4, Villages relapsed ⅜ to 4⅞, Gold Fields Deep were down 1/16 to 3 11/16, Consolidated Deep Level 1/16 to 3⅛, Roodepoort Deep, ¼ to 2 7/16, and Geldenhuis Deep ⅛ to 6¾, while East Rand closed at 49s. 6d., or 6d. lower. Ferriera lost ½ to 14⅝, Van Ryn ⅜ to 4⅛, and Nigel receded 1/16 to 5 1/16. Champ d'Or at 4½, City and Suburban at 16, Geldenhuis Estate at 5⅜, Heriot at 7¼, Jubilee at 8½, Meyer and Charlton at 6¼, Modderfontein at 8½, and United Roodepoort at 4½ were each ½ down. Chartered were widely quoted at 42s. 6d., being a trifle firmer at the close. Among the other Land shares, Oceanas were down to 2 1/16, Developments to 1⅛, Bechs to 31s. 6d., Explorings to 6½, Henderson's Estates to 1⅛, and Mozambiques to 23s. 6d. The market quickly recovered itself, and on Tuesday was in a distinctly better state. Large numbers of improvements were registered on the day. Modders rallied ⅜ to 8⅝, Rand Mines ½ to 20½, Ferreiras ⅛ to 15⅜, Langlaagte Estate gained 3/16 to 4 5/16, and Nigels recovered to 5¼. Van Ryns were ½ better at 4⅝, and small improvements occurred in Consolidated Deep, Crœsus, Goldfields Deep, Henry Nourse, Heriot, Langlaagte Royal, Metropolitan, Meyer and Charlton, Robinson, Roodepoort Deep, Salisbury, Sheba, Stanhope, Transvaal Gold, United Roodepoort, Village, Wemmer, Wolhuter, Spes Bona, and others. Chartered continued to improve, rising to 42s. 4½d., while Bechuanaland were 6d. better at 32s. Rand Mines led the upward movement, which was more pronounced at the opening on Wednesday by a rise of ⅜ to £21, while Randfonteins climbed up to 24s. 6d. and Wolhuters to 5⅞, the latter owing to the remarkably satisfactory manner in which the mine is opening up. Langlaagte Estates and Geldenhuis Estates were largely bought, the former at 4 9/16, and the latter at 3 11/16. Improvements occurred in Nigels, Glencairns, United Roodepoort, Primroses, Buffels, Cities, Crowns, Ferreiras, Gold Fields Deep, Heriot, Meyer and Charlton, Modders, Robinsons, Simmers, and a number of others. Chartered sharply recovered to 25s., and closed firm. De Beers firmer at 18¾, and Jagers were rather better at 17½. Thursday brought a further strengthening of the market. Rand Mines rose to 21½. Crœsus rose to 2⅝, while Consolidated Deep gained 1/16 to 4 1/16. Meyer and Charlton were enquired for, and rose 1/16 to £7. Rises also occurred in Wemmer, Ferreira, City and Suburban, Durban, Geldenhuis Estate, Langlaagte Royal, Lower Roodepoort, Bantjes, Afrikander, Crown Reef, George Goch, Gold Fields Deep, Henry Nourse, Jubilee, May, Roodepoort Deep, Steyn Estate, and Sheba. In the lower-priced shares, Geldenhuis Southern and Abercorn improved, and North Sheba were firm at 7s. 6d. United Roodepoort, Orion, Lisbon, and Virginia have, on the other hand, declined. In the Land section Chartered vacillated a good deal, and finally closed at 46s.

Risen: African Coal, 9d.; Banket, 3d.; Bechuanaland, 1s.; Block B, 4s. 6d.; Buffelsdoorn, 5s.; Champ d'Or Deep, 5s.; Coetzeestroom, 6d.; Crœsus Deep, 2s. 6d.; Ferreira, 2s. 6d.; Grahamstown, 6d.; Johannesburg Estate, 1s.; Johannesburg Investment, 1s. 3d.; Johannesburg Waterworks, 2s. 6d.; Langlaagte, 7s. 6d.; Mashonaland Agency, 1s.; New Crœsus, 2s. 6d.; Northern Transvaal Land, 1s. 6d.; Otto's, 3d.; Pardy's, 1s. 3d.; Randfontein, 3s.; Rietfontein, 5s.; Robinson, 2s. 6d.; Roodepoort Deep, 2s. 6d.; Sheba, 6d.; Silati, 1s.; South African Exploration, 5s.; Transvaal Coal, 6s.; United Langlaagte, 1s. 3d.; Wemmer, 2s. 6d.; Witwatersrand (Knight's), 1s. 3d.; Wolhuter, 2s. 6d.—Fallen: Agnes Block, 1s.; Alexandra Estate, 6d.; Aurora, 6d.; Aurora West, 1s.; Balkis Eersteling, 2s. 3d.; Balkis Land, 6d.; Bantjes, 1s. 3d.; Barrett, 1s.; Champion Deep, 5s.; Chartered, 1s. 6d.; City and Suburban, 5s.; Consolidated Gold Fields, 2s. 6d.; Crown Reef, 2s. 6d.; De Beers, 2s. 6d.; Durban, 2s. 6d.; Eastleigh, 3s. 9d.; East Rand, 6d.; Exploration, 2s. 6d.; Exploring, 2s. 6d.; Frank Johnson, 1s; Griqualand, 2s. 6d.; Geldenhuis Deep, 2s. 6d.; Geldenhuis Main, 6d.; Geldenhuis South, 1s. 6d.; Gold Fields of Mashonaland, 1s. 3d.; Ginsberg, 1s.; Glencairn, 1s. 3d.; Gordon, 6d.; Graskop, 3d.; Henry Nourse, 10s.; Johannesburg Pioneer, 5s.; Jubilee, 5s.; Jumpers, 2s. 6d.; Kleinfontein, 3s. 9d.; Klerksdorp, 9d.; Lisbons, 6d.; Luipaards, 1s.; Main Reef, 1s.; Masse Kessi, 1s.; Metropolitan, 1s. 3d.; Meyer and Charlton, 7s. 6d.; Moodies, 6d.; Morgan, 2s.; New Belgium, 6d.; New Louis d'Or, 3d.; New Jagersfontein, 2s. 6d.; New Virginia, 1s. 9d.; New Primrose, 2s. 6d.; Nigel, 2s. 6d.; Oceana Development, 1s. 9d.; Oceana Land, 2s. 6d.; Orange Free State, 10s.; Orion, 2s. 6d.; Paarl Central, 1s.; Pigg's Peak, 1s.; Potchefstroom, 6d.; Princess, 2s. 6d.; Salisbury, 2s. 6d.; South African Trust and Finance 6d.; Simmer and Jack, 15s.; South West Land, 2s. 6d.; Spes Bona, 1s. 6d.; Spitzkop, 1s. 6d.; St. Augustine, 6d.; Steyne, 1s. 3d.; South Reef, 2s.; Transvaal Land and Exploration, 1s. 3d.; United South Ivy, 2s. 6d.; United Roodepoort, 5s.; Van Ryn, 5s.; Village, 2s. 6d.; Willoughby's Consolidated, 3s. 9d.; Zambesi, 2s. 6d.

Miscellaneous Shares.

Miscellaneous shares participated at the beginning of the week in the depression ruling elsewhere. Westralians were comparatively firm. Bayley's, Hampton Plains, Gold Fields, and Nicols were rather better. Cashman and Boulders, on the other hand, were not so hard. On Tuesday, St. John del Rey lost 1s. to 27s.; Mysore Gold lost 1/16 at 2 13/16; Burma Ruby dropped 6d. to 9s. 6d.; and De Lamar 6d. to 26s.; Champion Reef improved 1/16 to 4⅛; West Australians, on the other hand, were largely dealt in. Blackett's and Big Blows hardened in value. West Australians remained steady on Wednesday. Boulders and Associated hardened, while Sherlaws strengthened to 7s. Gold Fields, Hampton Plains, and others remained buoyant, but Big Blow, Blackett's, and Londonderry were a trifle off colour. In other directions, Mysore-Wynaad hardened 1s. 6d. to 12s. 6d., and Nundydroog improved to 2, while Mysore Reefs fell to 5s. 6d., and Colombian Hydraulic to 12s. 6d. Callao Bis, Balaghat, Kapanga, and Mysore West registered small advances. Westralians were quiet on Thursday. Bayley's Reward relapsed to 12s. 9d., and Austin were lower at ⅛ premium. West Australian Exploring hardened at 1/16 premium, West Australian Mining rose 6d., to 8s. 6d., and Kinsella and Golconda were both harder. Blackett's again fell back to 10s., and Associated Gold Mines and Big Blow were each 1/16 weaker. In the other section of the Miscellaneous Market Nundydroog and Champion Reef each relapsed 1/16; but Mysore West rose 1s. to 14s. 6d., and Mysore-Wynaad were 1s. 3d. better at 13s. 9d. Burma Ruby and Poorman fell 6d., Broken Hill were 6d. worse at 36s. 6d., and Caratal lost 4½d. to 1s. 6d.

Risen: Australasian, 3d.; Brilliant, 6d.; Broken Hill Proprietary, 1s. 3d.; Carrington, 1s. 9d.; Colar, 3d.; Colon, 3d.; Copiapo, 1s. 3d.; Eaglehawk, 3d.; Golden Gate Amalgamated, 6d.; Idaho, 3d.; Kangarilla, 2s.; Loma, 3d.; Montana, 6d.; Mount Morgan, 1s. 3d.; Mysore West, 1s. 6d.; Mysore Wynaad, 1s. 6d.; Pinos Altos, 6d.; Ripanji, 1s.; Springdale, 9d.; Yerrakonda, 6d.—Fallen: Argentine Company, 1s.; Balaghat, 3d.; Bonnie Dundee, 1s.; Burmah Ruby, 1s.; Callao Bis, 6d.; Colombian Hydraulic, 6d.; Cumberland, 1s. 3d.; Day Dawn, 6d.; Day Dawn P.C., 3d.; De Lamar, 1s. 3d.; Dickens, 6d.; Glenrock, 3d.; Gravel Gold, 6d.; Holcomb, 3d.; Kaboonga, 3d.; Kapanga, 6d.; Kempinkoto, 3d.; La Yesca, 6d.; Mosman, 3d.; Mysore Reefs, 6d.; New Queen, 9d.; Nine Reefs, 9d.; Nundydroog, 1s. 3d.; Ooregum, 1s. 3d.; Palmarejo, 3d.; Pestarena, 6d.; Poorman, 9d.; Rio Tinto, 13s. 9d.; St. John del Rey, 1s.; Victory, 6d.; Waihi Gold, 12s. 6d.; Wentworth Ordinary, 6d.

Australian.

Risen: Hampton Plains, 2s. 6d.; Mawsons, 1s. 3d.—Fallen: Austin, 3s. 9d.; Blacketts, 1s. 3d.; Great Boulder, 1s. 3d.; Golconda, 1s. 3d.; London and Western Australian, 1s. 3d.; Mawson's, 1s. 3d.; West Australia Gold Field, 1s. 3d.; West Mallina, 3d.

SUBSCRIPTION LIST will OPEN on MONDAY, the 28th January, 1895, and CLOSE for LONDON, at 4 o'clock on TUESDAY, the 29th; and for the COUNTRY on WEDNESDAY, the 30th, at Noon.

THE RHODESIA GOLDFIELDS, Limited.

CAPITAL - - - £1,000,000,

IN 500,000 PREFERRED SHARES, AND 500,000 ORDINARY SHARES OF £1 EACH, payable as follows:—

2s. on Application; 3s. on Allotment; 5s. on 15th April, 1895; 5s. on 15th July, 1895; 5s. on 15th October, 1895.

THE PREFERRED SHARES ARE ENTITLED TO A CUMULATIVE DIVIDEND OF 6 PER CENT. PER ANNUM, AND ARE PREFERRED AS TO CAPITAL AS WELL AS TO DIVIDEND.

DIRECTORS.

ANDREW A. BRAND, Messrs. Harvey, Brand, and Co., London.
W. M. FARMER, Director, Consolidated Gold Fields of South Africa (Limited).
Dr. F. RUTHERFORD HARRIS, Secretary, Chartered British South Africa Company, Cape Town (Representing the Board at the Cape).
HENRY PARTRIDGE, Director, Willoughby's Consolidated Company (Limited).
P. C. C. RADCLIFFE, Derriford, Plymouth.
SIR JOHN C. WILLOUGHBY, Bart., Managing Director, Willoughby's Consolidated Company, Limited (Representing the Board in Rhodesia).

Agents in South Africa—BULAWAYO: J. A. SPRECKLEY, Manager, Willoughby's Consolidated Company (Limited).
" —SALISBURY: MAURICE HEANY, Managing Director, Matabele Gold Reefs Company (Limited).
And FREDERICK COURTENEY SELOUS.

Bankers—THE NATIONAL BANK OF SCOTLAND (Limited), 37, Nicholas Lane, London, E.C.; Head Office in Edinburgh; and Branches in Scotland.
STANDARD BANK OF SOUTH AFRICA (Limited), Cape Town, Salisbury, and Bulawayo.

Solicitors—ASHURST, MORRIS, CRISP, and CO., 17, Throgmorton Avenue, E.C.

Auditors—FULLER and WISE, Portland House, Basinghall Street, E.C. | **Secretary**—G. R. SAUNDERS.

OFFICES—3, COPTHALL BUILDINGS, E.C.

PROSPECTUS.

The Rhodesia Goldfields (Limited) has been formed to acquire, by subscription or purchase, shares or other approved securities in companies or Associations in, or having an interest in, the Territories of the Chartered British South Africa Company, and generally to promote the development of the industries and enterprise already inaugurated in Rhodesia and British South Africa. The Company will, in short, carry out in the Chartered Company's Territories what has been so successfully accomplished on the Rand and elsewhere by the Consolidated Goldfields of South Africa (Limited) and the South African Gold Trust (Limited).

The reports of the Chartered British South Africa Company, and other companies interested in South Africa, show that in Mashonaland 1,722,274 acres of valuable agricultural land have already been located and surveyed, and in Matabeleland nearly 5,000,000 acres have already been located; that 66,000 gold claims, aggregating over 1,800 miles of gold reefs, have been registered, on some of which development is being vigorously pushed forward, while large areas of coal and iron deposits have been already discovered.

The townships of Salisbury, Bulawayo, and Umtali are rapidly increasing. At the date of the last return (September, 1894) that of Salisbury included a Branch of the Standard Bank of South Africa, 15 Hotels and Inns, and over 200 buildings principally built of brick. At the same date Bulawayo, which was marked out in November, 1893—less than fifteen months ago—also contained a Branch Bank, 27 Hotels and Inns, Clubs, &c., &c.; 78 houses were already finished and occupied, and 61 in course of completion.

There is a continuous flow of population to the mining districts of Rhodesia, which, in the opinion of the Directors, bids well to equal, if not surpass, those of the Rand.

The undeveloped wealth of Rhodesia is now an accepted fact, and the Directors join in the general belief in its future prosperity, and believe that a very satisfactory return will be derived from the investment of money in carefully-selected British South Africa securities.

As evidence of the increasing value of the shares of Companies interested in British South Africa the following list may be quoted:—

The Chartered Company's shares	£1	paid, are quoted at	£2 5s.
Consolidated Goldfields of South Africa	£1	" "	£4
South African Gold Trust	£1	" "	£3 15s.
Willoughby's Mashonaland Expedition Syndicate* ...	£1	" "	£12
Mashonaland Development Co. (Willoughby's)* ...	£1	" "	£2 10s.

* On December 31st, 1894. Since amalgamated into Willoughby's Consolidated Company (Limited).

The Articles of Association of the Rhodesia Goldfields (Limited), expressly prohibit the Directors from the investment of any of its funds in any securities outside of British South Africa or Companies or Associations having interests in South Africa.

The expenses of formation of the Company are limited to half per cent. on the Capital of the Company, and no payment will be made either for promotion money, underwriting, or other commissions.

The following contract has been entered into, which can be seen at the offices of the Solicitors to the Company, viz.:—An agreement dated January 25th, 1895, between the Company of the one part, and G. R. Saunders of the other part, for payment of the expenses of formation of the Company as above mentioned.

The Memorandum and Articles of Association may also be seen at the Offices of the Solicitors of the Company.

Applications for Shares must be forwarded to the Bankers of the Company with the amount of the deposit. If no allotment is made the deposit will be returned in full, and where the number of Shares allotted is less than that applied for the balance will be applied towards the payment due on allotment, and any excess returned to the applicant.

Prospectuses and Forms of Application for Shares can be obtained from the National Bank of Scotland (Limited), the Solicitors, and at the Offices of the Company.

25th January, 1895.

In accordance with the provisions of the Company's Act of Parliament, Interest will be paid during Construction at the rate of 3 per Cent. per annum.

The LISTS will OPEN on TUESDAY, JANUARY 29th, and CLOSE on THURSDAY, JANUARY 31st, for LONDON, and on FRIDAY, FEBRUARY 1st, for COUNTRY Applications.

PORT TALBOT RAILWAY AND DOCKS COMPANY.

Incorporated by Special Act of Parliament, 31st July 1894.

Authorised Share Capital - - £600,000.

ISSUE OF £500,000, IN 50,000 SHARES OF £10 EACH,

PAYABLE AS FOLLOWS:—

10s. on Application, £1 10s. on Allotment, and the balance in calls not exceeding £2 per Share at intervals of not less than 3 months.

The Liability of Shareholders is limited to the Amount of the Shares held by them.

Directors—The Rt. Hon. the Earl of DUNRAVEN, K.P., Dunraven Castle, Bridgend (*Chairman*). Col. JOHN THOMAS NORTH, Avery Hill, Eltham (Chairman of North's Navigation Collieries). Col. WRIGHT, J.P. (Chairman, Messrs. Wright, Butler & Co., Limited, Gowerton, Panteg and Cwmavon Steel Works, Gowerton, Panteg, and Port Talbot). S. H. BYASS, Esq., J.P. (Messrs. R. B. Byass & Co., Tin Plate Manufacturers, Port Talbot). T. E. WATSON, Esq. (Messrs. Pyman, Watson & Co., Steamship Owners and Coal Shippers, Cardiff, and Director of the Ffaldau Collieries Co. Limited, Garw Valley). Col. C. R. FRANKLEN, R.A., J.P., Clemenstone, Bridgend (representing Miss Talbot, of Margam Abbey, Glamorganshire).

Bankers—THE LONDON AND PROVINCIAL BANK, LTD., Cardiff, and their Branches, or their London Agents, Messrs. GLYN, MILLS, CURRIE & Co., 67 Lombard Street.

Engineers—J. A. MCCONNOCHIE, Esq., 12, Victoria Road, Kensington. P. W. MEIK, Esq., 16, Victoria Street, S.W. FORSTER BROWN, Esq., Guildhall Chambers, Cardiff.

Auditors—Messrs. DELOITTE, DEVER, GRIFFITHS, & Co., 4 Lothbury, E.C.

Solicitors—Messrs. CHESTON & SONS, 1 Great Winchester Street, E.C., London. L. G. WILLIAMS, Esq., 8 Charles Street, Cardiff.

Brokers—Messrs. SOPPER BROTHERS, 30 Throgmorton Street, E.C., London. Messrs. FAITHFUL BEGG & Co., Bartholomew House, E.C., London. Messrs. THACKERAY & Co., Cardiff.

Secretary and Offices—EDWARD KNOX, Esq., Bank Chambers, Port Talbot, and 1 Great Winchester Street, London.

ABRIDGED PROSPECTUS.

THE PORT TALBOT RAILWAY AND DOCKS COMPANY has been formed for the following objects:—

(1.) To acquire the existing harbour and docks at Port Talbot in the South Wales coal-field and to equip them with the best modern appliances for the shipment of coal, and for the import trade.

(2.) To construct a new dock with deep water locks and piers, and to equip it with new tips and the best modern appliances for shipping coal, and for the import trade.

(3.) To construct railways about 15 miles in length connecting the extensive coal-fields in the Llynvi and Garw Valleys with Port Talbot, and opening up large coal-fields at present undeveloped.

DOCK ACCOMMODATION.

The first instalment of the new dock will be nine acres in extent, which will be capable of considerable enlargement at a comparatively small expense. One special advantage possessed by the Company is that no extravagant expenditure on new docks is likely to be required, as the small new dock will be connected by means of the existing lock with the old dock. This latter contains a water area of 90 acres, the whole of which can be made available for deep water traffic as the trade develops.

The outer sill of the new lock is at a lower level than those of the Roath and Penarth docks at Cardiff, and the best dock at Swansea, and will afford a depth of 31 feet at high water of ordinary spring tides.

The total area of the Company's dock property exceeds 300 acres.

It is estimated that after reserving ample quay space for all the requirements of an import trade, the new dock and the existing dock will provide sites for the erection of 18 coal tips of the most modern type, capable of shipping 4,000,000 tons of coal per annum.

RAILWAY.

The railway will run from Port Talbot Dock, through the Dyffryn Valley coalfield, to the important colliery district of Maesteg in the Llynvi Valley, and thence to a junction with the Great Western Railway at Pont-y-rhyl in the Garw Valley. The railway will have junctions with the Great Western Railway and the Rhondda & Swansea Bay Railway at Port Talbot.

The Company has by its Act obtained running powers over the Great Western Railway to the head of the Garw Valley, which will allow the Port Talbot Company to have direct access to all existing collieries in that valley.

Thus the Llynvi, Garw, and Dyffryn Valleys, and the Glyncorrwg and Ogmore coalfields, as well as the Rhondda Valley (access to which is given by the Rhondda and Swansea Bay Railway) will be brought into direct and closer communication with Port Talbot Dock, and a shorter route will be created to Swansea and the manufacturing district in that direction.

The distance to Cardiff, which is at present the principal port of shipment, is 25 miles from the Llynvi Valley, and 27 miles from the Garw Valley. The distance to Swansea by the existing route is 29 miles from the Llynvi Valley, and 32 miles from the Garw Valley.

The distance to Port Talbot will be about 9 miles from the Llynvi Valley and 16 miles from the Garw Valley, thus effecting a saving on the journey to port of 16 and 11 miles respectively as against Cardiff, and 20 and 16 miles respectively as against Swansea, and rendering Port Talbot the natural place of shipment for these valleys.

The whole of the Port Talbot Railway lies within the South Wales Coalfield, and the average distance to the Port from the collieries intended to be served by the railway will be only 13 miles.

The Barry Railway runs from Barry Dock for 10 miles before it reaches the coalfield, and the average distance to Barry from the collieries is 23 miles.

SHARE CAPITAL.

Of the authorised Share Capital of £600,000, the Company has issued £50,600 for the purchase of the existing Dock, and £49,400 is reserved to be issued for the purchase of land and the erection of additional Coal-tips when required.

The Directors have received undertakings from Miss Talbot and other persons of undoubted stability to apply for and take at par, without any underwriting commission, £480,000 of the present issue in the event of an insufficient public subscription; but no preferential allotment will be made except to freighters.

The Company has thus arranged that nearly the whole of its capital shall be subscribed without the payment of any promotion money or underwriting commission, and, with the proceeds of the Debentures, it will have funds more than sufficient to secure the completion of the Railways and Dock.

BORROWING POWERS.

The Company is authorised to raise £174,000 capital by debentures or debenture stock, which will be issued at a rate of interest not exceeding 4 per cent.

COST AND COMPLETION OF WORKS.

Messrs. Pearson & Sons, Contractors, of Westminster, have entered into a contract to construct the whole of the dock and railway works without any extras, at a fixed lump sum price of £527,000.

By this contract Messrs. Pearson and Sons undertake all risks of construction of every kind and undertake to hand over the whole of the railway works completed within two years, and the whole of the dock works within three years, of the commencement of the works, and to maintain all works for twelve months after completion.

Mr. Forster Brown estimates that on completion of the Dock and Railway works 1,250,000 tons of coal per annum will be shipped at the docks, and that two years after their completion the shipments will increase to 2,000,000 tons. £20,000 of Capital will be reserved for the erection of additional tips to deal with the increased tonnage.

The smaller quantity, with the import and passenger traffic, may be expected to yield a revenue of 6¼ per cent., and the larger quantity a dividend of 10 per cent. after providing for Debenture interest.

The amount from time to time paid up during the construction of the works will bear interest payable out of capital at the rate of 3 per cent. per annum during the period limited by the Act for the construction of the works, and not exceeding in the whole the sum of £75,000.

Application will in due time be made to the Stock Exchange for an official quotation.

For full Prospectus, see daily papers, Prospectuses, Maps, and Forms of Application can be obtained of the Bankers and Brokers, or of the Secretary of the Company.

January 23rd 1895.

The SUBSCRIPTION LISTS will OPEN on the MORNING of MONDAY, the 28th January, and will CLOSE at or before Four p.m. on TUESDAY, the 29th January, for LONDON; and at Twelve noon on WEDNESDAY, the 30th January, 1895, for the COUNTRY.

THE MATABELELAND DEVELOPMENT COMPANY, LIMITED.

CAPITAL £300,000,

in 300,000 Shares of £1 each, of which 70,000 SHARES are now OFFERED for PUBLIC SUBSCRIPTION.

Payable 2s. on Application; 5s. upon Allotment; and the balance, if required, in instalments of not more than 5s. each, at intervals of not less than three months.

DIRECTORS.

Sir GEORGE W. R. CAMPBELL, K.C.M.G., Director United Rhodesia Gold Fields (Limited), Chairman.
Joseph B. Brook, Esq., 2, Fen Court, London, E.C., African merchant.
John Carrick, Esq., 22, West Nile Street, Glasgow, Director Mazoe Syndicate (Limited).
Claud G. Grenfell, Esq., 29, Chester Square, S.W.
Calvert B. Holland, Esq., A.M.I.C.E., Chairman, Matabeleland and Mashonaland Syndicate (Limited).
John Neilson, Esq. (Messrs. Neilson Brothers), 94, Hope Street, Glasgow.
BANKERS—The Union Bank of Scotland (Limited), 62, Cornhill, London, E.C.
SOLICITORS—Messrs. Ingle, Holmes, and Sons, 20, Threadneedle Street, London, E.C.
AUDITORS—Messrs. Cooper Brothers and Co., 14, George Street, Mansion House, London, E.C.
BROKERS.
Messrs. Bourke, Sandys, and Co., 7, Austin Friars, London, E.C.
Messrs. Carrick, Kellock, and Barclay, 22, West Nile Street, Glasgow.
SECRETARY AND OFFICES.—G. G. Walker, Esq., 19, St. Swithin's Lane, London, E.C.

ABRIDGED PROSPECTUS.

The Matabeleland Development Company (Limited) has been formed to acquire and develop 125 square miles of land, carrying the right to all minerals therein, under the laws of the British South Africa Company, of which 75 square miles are in Matabeleland and 50 square miles in Mashonaland.

The property is held under an agreement (known as the Lippert Concession) made by the British South Africa Company with Mr. Edward A. Lippert, and the late Mr. E. R. Renny-Tailyour, of Johannesburg, associated with others under the title of the Matabeleland Syndicate, Johannesburg.

There is little doubt that this Concession is the most extensive mineral Concession yet granted by the British South Africa Company, having been given as part of the consideration for the purchase by that Company of the land grant and other rights over the whole of Matabeland and Mashonaland obtained from King Lobengula with the concurrence of the British South Africa Company.

Registration certificates for all the land and the minerals, subject to prior rights, have been obtained, and the official survey of the land is now being made.

Mr. H. A. Piper, a mining engineer of considerable experience, is now in Matabeleland in charge of the property, and will proceed at once with the systematic prospecting of the two large areas, with a view to the disposal of portions thereof in suitable blocks to subsidiary companies.

The areas were selected under the directions of Mr. Renny-Tailyour, who was upon intimate terms with Lobengula, and spent many years in, and had an exceptional knowledge of, the country.

The 75 square miles in Matabeleland were located under the personal directions of Mr. Renny-Tailyour. Of this land 50 square miles are situated between the rivers Sebakwe and Ukwekwe, the boundary running down the Sebakwe from its junction with the Bembesane to its junction with the Ukwekwe, thence five miles up the Ukwekwe, and across back to the junction of the Bembesane and Sebakwe. This area embraces land and mineral rights.

The other 25 square miles adjoin, being situated between the rivers Sebakwe and Bembesane, from the Hunter's Road (from Hartley Hills) to their junction. A claim to prior rights in regard to land only has been made in respect of this 25 square miles, but the British South Africa Company agrees that the mineral rights, subject to a few claims that were already pegged, are secured to the Vendor Syndicate, and in case the prior land rights should be substantiated, has authorised the location elsewhere in Matabeleland of 25 square miles of land carrying land rights only. The small claims to minerals referred to include one, upon the 25 square mile block, 700 yards by 60 or 70 yards. These matters are now under adjustment at Buluwayo, and the Company has the right, in the event of the claims to minerals being upheld, to peg out other claims in lieu thereof.

The 50 square miles area in Mashonaland, which is about 30 miles from the Matabeleland area, was located under the direction of Mr. U. P. Swinburne, mining engineer, Salisbury. This property is situated on the Umsweswi River, in the Umfuli District, running for about 16 2-3 miles along that river and having a breadth of three miles. The Mombi River flows into the Umsweswi at a point near the middle of the northern boundary of the property. Mr. Piper cables that there are no prior claims upon this area.

Both areas are amply watered, and lie in a line running north-east from Buluwayo to Salisbury upon the gold belt. The Right Hon. Cecil Rhodes stated, as reported in "The Times" of the 7th September, 1894, that he was quite positive from the reports of the engineers that the large gold belt extended from Tati to Umtali, and with cheap working believed it would prove one of the largest goldfields in the world. For extracts from the reports of Mr. Renny-Tailyour, Mr. Swinburne, and Mr. Piper, see full prospectus.

The Vendor Syndicate, which is the promoter of the Company, has fixed the price to be paid for the properties at £220,000, to be paid and satisfied as to £20,000 in cash, and as to £200,000 in fully paid shares. Messrs. Brook, Carrick, and Holland, three of the Directors of the Company, are members of the Vendor Syndicate.

Of the £70,000 required, £50,000 will be available for working capital, in compliance with the conditions under which the property is to be acquired. The balance of the nominal capital of the Company, £30,000, will be available for issue for further working capital, if required.

A contract has been entered into dated the 25th January, 1895, between the Matabeleland and Mashonaland Syndicate (Limited), of the one part, and this Company of the other part, for the purchase of the property. The Vendor Syndicate by this contract, which can be seen at the offices of the Solicitors of the Company, agrees to pay all expenses attending the incorporation and formation of the Company up to the first general allotment of shares, but the Company will pay the legal costs of, and incidental to, the conveyance of the property. The Vendor Syndicate has entered into certain agreements for guaranteeing the subscription of a portion of the shares now offered. Applicants for shares may be deemed to have had notice of these agreements, and to have waived all right to any particulars thereof, whether under Section 38 of the Companies' Act, 1867, or otherwise.

The Memorandum and Articles of Association may also be seen at the offices of the Solicitors of the Company.

Prospectuses and forms of application for shares can be obtained from the Bankers, the Solicitors, the Brokers, and at the offices of the Company.

APPLICATION WILL BE RECEIVED ON THE FOLLOWING FORM.

THE MATABELELAND DEVELOPMENT COMPANY (Limited).

—Issue of 70,000 Shares of £1 each. Payable as follows—2s. upon Application; 5s. upon Allotment, and the balance, if required, in instalments of not more than 5s. each at intervals of not less than three months.

FORM OF APPLICATION.

To the Directors of the Matabeleland Development Company (Limited), 19, St. Swithin's Lane, London, E.C.

Gentlemen,—Having paid to the Bankers of your Company the sum of £ , being a deposit of 2s. per Share on application for Shares in such Company, I hereby request that you will allot to me that number, and I agree to accept such Shares, or any smaller number you may allot to me, upon the terms and conditions of the prospectus dated 26th January, 1895, and the Memorandum and Articles of Association of the Company. And I request you to place my name on the register of members in respect of the Shares which you may so allot to me, and I agree to pay the balance as required in the terms of the said Prospectus. And I agree with the Company as Trustee for the Directors to waive any fuller compliance with Section 38 of the Companies Act, 1867, than is contained in the said Prospectus.

Signature .....
Name in full .....
Description .....
Address .....
Date .....

RAIL TENDERS FOR AN AUSTRALIAN COLONY.—A call for tenders for the supply of 350 miles of railway material is expected. The order is about 30,000 tons, and the gross value of the contract about £90,000.

MESSRS. BAINBIDGE, SEYMOUR AND Co. inform us that they have made arrangements with Messrs. Crossland and Co., of Perth, West Australia, to represent them in that colony, and that they are in a position to secure prompt and reliable reports, through their agency, on any mining property.

THE twenty-second annual dinner of the old students of the Royal School of Mines was held last evening at the Criterion Restaurant, under the presidency of Mr. W. H. Greenwood, Assoc.R.S.M., M.Inst.C.E. A full report of the proceedings will appear in our next week's issue.

LAXTON'S BUILDERS' PRICE BOOK FOR 1895.—We have received a copy of this useful book, which is published by Messrs. Kelly and Co. (Limited), High Holborn, W.C. It has been completely revised and alterations in prices are made up to the latest possible date. It also contains the new London Building Act, 1894.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, JANUARY 25.

Copper.

THE G.M.B. Market opened strong at £41 s.c., and £41 7s. 6d. three months, but it received very little support from any quarter, and the moderate sales effected served to send values downwards, £40 13s. 9d. s.c. being done on Monday, £40 11s. 3d. on Tuesday, £40 10s. on Wednesday, and £40 8s. 9d. on Thursday. Friday's market brought no change of consequence, and the market closed dull at £40 7s. 6d. to £40 8s. 9d. s.c., and £40 13s. 6d. to £40 15s. three months. The daily turnover varied from 450 tons to 125 tons. America continues to offer but small quantities, and to ask high prices.

Tin.

In this market the opening was very firm at £61 12s. 6d. s.c. Straits, an advance of 17s. 6d. per ton; and good quantities were placed at the highest figures. Sales being, however, pressed, the improvement did not last long, and a rapid downward movement ensued, £60 10s. being touched on Tuesday, £59 15s. on Wednesday, and £59 10s. on Thursday, but the decline reached bottom with the last figure named, Friday witnessing a smart recovery, due partly to the great scarcity, and consequent rise in spot tin in America, and partly to the improvement in silver. The market closes steady at £60 17s. 6d. to £61 s.c. and three months. In the Dutch market Billiton opened at 37½ fl. s.c., and 37½ fl. three months, and gradually declined, the last prices to hand (Friday morning) being 36½ fl. and 36⅜ fl. respectively, with Banca at 36¾ fl.

Pig Iron.

Scotch shipments last week are advised as 5080 tons, or about 1600 tons over those of the corresponding week of last year. In Glasgow, this week's market has been very restricted indeed, and values have shown an entire lack of strength, giving way from 41s. 9d. to 41s. 4d. s.c., and from 41s. 10½d. to 41s. 6d. a month. These lower limits were attained on Thursday. To-day we have to report a still flatter market, closing at 41s. 2½d. and 41s. 4½d. respectively. Hematite opened at 42s. 8½d., and closes at 42s. 4½d., whilst Cleveland has declined from 34s. 7d. to 34s. 3½d.

Lead

continues firm, without special feature, at £9 12s. 6d. to £9 13s. 9d. soft foreign, and £9 15s. to £9 16s. 3d. English.

Spelter.

This market is steady as to value. Demand is, however, quiescent, neither consumers nor dealers testifying any interest in the article at present. The close is at £14 5s. ordinaries, and £14 7s. 6d. to £14 10s. specials.

Antimony

is quiet and unchanged at £32 10s.

Quicksilver

remains steady at £6 12s. 6d. firsts, and £6 11s. 6d. seconds.

The following are to-night's (January 25) prices of metals:—

	£ s. d.	£ s. d.
Copper.		
Tough cake and ingot	43 5 0	43 15 0
Best selected	44 0 0	44 10 0
Sheets and sheathing	51 10 0	52 0 0
Flat bottoms	54 10 0	55 0 0
Chili bars	spot, & 3 months respectively 40 7 6	40 13 9
Good merchantable,		
Copper tubes, seamless	—	0 0 7½
Alloys.		
BRASS: Wire	—	0 0 6
,, Tubes (solid drawn)	—	0 0 5¾
,, Sheets	—	0 0 5½
PHOSPHOR BRONZE: Alloys II.	—	78 0 0
,, ,, III. or V } Cog Wheel Brand	—	81 0 0
,, ,, VII. }	—	83 0 0
,, ,, XI.	—	78 0 0
,, ,, Vulcan brand A1	—	72 0 0
DURO METAL	—	73 0 0
BULL'S METAL	—	65 0 0
Ferrobronze (Vivian's).		
Ingots ...per lb.	0 0 5½	—
Ordinary sheets, plates, bolts and bars	0 0 6½	—
Screw bolts and nuts	0 0 8	—
Pump rods, plain	0 0 7	—
,, finished	0 0 10	—
DELTA METAL: No. 4 (per ton)	—	—
,, Sheets and plates (per lb.)	—	—
,, Bars, round, square, flat (per lb.)	—	—
,, ,, hexagon (per lb.)	—	—
Tin.		
English, ingots, f.o.b.	64 0 0	65 0 0
,, bars	65 0 0	66 0 0
,, refined	66 0 0	67 0 0
Straits, spot and 3 months respectively	60 17 6	60 17 6
Australian spot, and three months respectively	61 0 0	61 0 0
Banca ,, (in Holland)	61 12 6	61 15 0
TIN PLATES: Charcoal, best quality per box	0 14 0	0 16 0
,, ,, ordinary	0 11 6	0 13 6
,, Coke, best quality	0 10 0	0 10 9
,, ,, ordinary	0 9 6	0 9 9

These prices of tinplates are f.o.b. at Swansea: at Liverpool 6d. per box more.

Iron.		
Pig, G.M.B., f.o.b., Clyde, spot	—	2 1 2½
,, Scotch pig, No. 1 Gartsherrie	—	2 10 9
,, ,, Coltness	—	2 14 0
,, ,, Clyde	—	2 9 0
,, ,, Govan	—	2 3 0
Bars, Welsh, f.o.b. Wales	—	5 0 0
Plates ,, ,,	—	6 0 0
Bars, Staffordshire, at works	—	5 2 6
Sheets ,, ,,	—	6 7 6
Plates ,, ,,	—	5 5 0
Hoops ,, ,,	—	5 10 0
Ship plates, Middlesborough	—	4 16 3
STEEL: English spring	—	10 0 0
,, ,, cast	—	42 0 0
,, Rails at works, according to section	3 12 6	4 5 0
Lead.		
Spanish or soft foreign	9 12 6	9 13 9
English pig, common	9 15 0	9 16 3
,, L.B.	—	10 5 0
,, sheet	—	10 15 0
,, bar lead	—	10 15 0
,, pipe	—	11 5 0
,, red	—	12 0 0
,, white	—	16 5 0
,, patent shot	—	14 0 0
Spelter.		
Silesian ordinary brands	—	14 5 0
,, special brands	14 17 6	14 10 0
English Swansea	14 17 6	15 0 0
Sheet Zinc	17 12 6	17 17 6
Antimony.		
Antimony	—	32 10 0
Quicksilver.		
Flasks, 75 lbs. warrants	6 11 6	6 12 6
Manganese.	per unit.	
Ore, c.i.f., U.K. ports		
1st quality, 50 per cent. and upwards	0 0 10½	0 0 11¼
2nd ,, 47 per cent. to 50 per cent.	0 0 9	0 0 10
3rd ,, 40 ,, 47 per cent.	0 0 8	0 0 0
Aluminium.		Per lb.
98-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)		0 1 8
do do (1 ton lots)		0 1 7
Nickel.		
98-99 per cent. guarantee	0 1 4	0 1 5

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "called up" column of British Mines, signifies that the mine is conducted on "Cost Book" principles: † in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office and ‡, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name	Closing Price, Jan. 25, 1895	Closing Price, Jan. 18, 1895.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
			£ s.		£ s. d.			
Blue Hill's ....*CT*	2/6 5/-	2/6	*	2/- May, '81	5 15 6	5,353	Cornwall	Camborne.
Botallack .. ..*T*	⅛ ¼	⅛	*	—	51 4 6	1,880	Cornwall	St. Just.
Carn Brea .....*T*	1⅛ 2	1⅛	*	2/6 Dec., '93	22 8 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen ..*T*	10/- 15/-	—	*	—	35 15 10	4,900	Cornwall	Camborne.
Devon Gawton *CA*	par ¼ pm.	p.¼p.m	1 0	—	0 7 6	25,000	Near Tavistock	8, Finsbury circus.
Devon Gt Cons.*CA*	1½ 1¾	1¼	5 0	3/- Nov. '94	2 0 0	10,240	Devon	8, Finsbury circus.
Dolcoath .....*T*	44⅛ 45⅛	36	*	12/6 Apr. '94	9 12 6	4,700	Cornwall	Camborne.
Drakewalls *CTM*	1/- 1/6	1/-	0 5	—	0 2 0	61,856	Cornwall	Dashwood House.
East Pool .....*AT*	4⅛ 5	3⅛	*	1/6 Sept, '94	0 9 9	6,400	Cornwall	Illogan.
Gawton .....*CA*	— —	—	2 10	—	2 7 0	12,000	Devon	2?, Great St. Helens.
Great Laxey.....*L*	1¾ 2	1¼	4 0	5/- Apr., '92	4 0 0	15,000	Isle of Man ..	Douglas, Isle of Man.
Green Hurth ...*L*	1/6	1/6	1 0	-/6 June '89	0 19 0	32,000	Cumberland..	Newcastle.
Halkyn .....*L*	— —	—	1 0	2/- Dec. '94	1 0 0	10,000	Flintshire.....	Chester.
Hexworthy .....*T*	— —	—	1 0	—	1 0 0	14,634	Devon	6, Queen-street-place
Isle of Man .....*L*	— —	—	5 0	1/6 Dec, 94	5 0 0	14,000	Isle of Man ...	Chester.
Killifreth .....*T*	15/ 20/	1	*	1/6 Nov.,'94	5 11 6	6,000	Cornwall	Truro.
Leadhills .....*L*	18/- 20/-	15/-	6 0	3/- Sep '92	6 0 0	20,000	Lanarkshire...	30, Finsbury-circus.
Levant .....*CT*	4 4¼	4	*	4/- Nov.,'94	11 9 6	2,500	Cornwall	Penzance.
Lovell .....*T*	— —	—	*	1/3 Nov.,'91	1 16 7	7,165	Wendron	3, Gt. Queen-st.,S.W.
Minera.....*L*	— —	—	5 0	5/6 Mar.,'90	5 0 0	9,000	Denbighshire..	Minera, N. Wales.
Neuthd&Tndle.*LZ*	2/-	2/-	1 0	6⅞ Feb., '91	0 18 0	48,8 5	Northumberld	Newcastle on-Tyne
NewCooksKitn.*TC*	— —	—	*	—	10 18 3	4,900	Cornwall	Camborne.
New Minera.....	— —	—	1 0	1/- Oct., '92	1 0 0	30,000	North Wales...	6 Queen-street-place.
Parc .....*LZ*	— —	—	1 0	—	1 0 0	5,000	Llanrwst.....	Billiter sq. buildings
Phœnix United*TC*	1/6 2/-	1/6	*	1/- Mar. '90	7 4 6	10,865	Cornwall	Liskeard.
Polberro .....*T*	12/6 17/6	7/6	*	—	7 7 9	18,000	Cornwall	37, Walbrook.
So. Condurrow *TC*	2/6 5/-	2/6	*	3/6 Apr. '93	7 17 6	6,123	Cornwall	20, Great St Helens
South Crofty *TA*	5/ 10/	5/-	*	—	17 7 6	6,190	Cornwall	Pool, Cornwall.
S. Frances Untd. *T*	2/6 7/6	2/6	*	—	2 7 6	6,000	Cornwall	Redruth.
Tincroft .....*T*	4 4½	4	*	2/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale .....*L*	8/9	8/9	4 0	1/3 Oct. '90	1 10 0	80,000	Durham.....	3, Lombard-court.
West Frances ...*T*	2/6 7/6	2/6	—	2/6 May, '89	16 4 7	6,144	Cornwall	Camborne.
West Kitty .....*T*	5 5½	4½	*	2/- Dec, '94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheal Agar ...*TA*	2/6 7/6	2/6	*	2/6 Aug. '88	23 15 2	6,000	Cornwall	Redruth.
Wheal Basset...*TC*	1¾ 1½	10/	*	10/- Apr.'86	12 3 0	6,144	Cornwall	Redruth.
Wheal Friendly..*T*	-/6 1/-	-/6	*	—	0 12 9	10,700	Cornwall	1?0, Cannon-st., E.C.
Wheal Grenville *T*	11 12	11	*	2/6 Nov. '94	18 2 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty.....*T*	1/- 3/-	1/-	*	3/- Mar. '88	4 5 6	8,590	Cornwall	Truro.
Wheal Metal &F.*T*	⅛ ¼	⅛	*	—	0 13 9	10,784	Cornwall	14, Broad-street Av.

AUSTRALIAN AND NEW ZEALAND MINES.

Abbotts .....*G*	1/16 3/16 pm	1/16 pm	1 0	—	0 10 0	100,000	Murchison ..	17, Old Broad st.
Achilles Gld Fld.	2/6 3/6	2/6	1 0	—	1 0 0	80,307	New Zealand	3, Church Pas , E.C.
Aladdins Lamp *G*	18/9 21/3	1	1 0	1/- Dec. '54	1 0 0	100,0 0	N S Wales ..	4-6, Throg. Avenue.
Amana (West.) *G*	— —	—	1 0	—	1 0 0	75,000	N. S. Wales ..	5, Throg. Avenue.
Angio-Saxon ...*G*	— —	—	1 0	2/- July, '89	1 0 0	61,000	Queensland ..	4, Lombard-court.
Austin..... *G*	1¾ 1¾	1⅝	1 0	—	1 0 0	50,000	W. Australia...	23, College hill, EC
Australasian .....*G*	5/6 6/	5/3	1 0	-/6 Mar., '92	1 0 0	210,000	Queensland ..	6, Queen-st, place
Australian .....*C*	— —	—	20 0	1/6 July '94	7 7 6	18,315	So. Australia	15, Old Jewry Chbrs
Aus, Bro. Hill Con.	1/3 2/3	1/9	1 0	1/- June, '91	1 0 0	537,138	N. S. Wales ..	Dashwood House.
Baker's Creek ...*G*	1 1¾	1	1 0	1/- Dec. '94	0 17 6	100,000	N. S. Wales ...	Hillgrove, N.S.Wales
Bayley's Reward *G*	13/- 14/-	13/-	1 0	-/4 Dec. 94	1 0 0	480,000	W. Australia...	2, Met. Ex. Buildings
Big Blow .....*G*	⅜ ⅜ dis	⅞	1 0	—	0 15 0	100,000	W. Australia...	Blomfield Ho., E.C.
Blackett's Claim *G*	10/- 12/6	10/-	1 0	—	1 0 0	60,000	W. Australia...	14, Sherborne ln..E.C.
Blue Spur & G. G.	-/6 1/-	-/6	1 0	—	1 0 0	80,098	New Zealand	6, Gt. St. Helens'
Bonnie Dundee *G*	13/- 14/-	14/-	1 0	—	0 18 6	120,000	Queensland ..	3-5, Gracechurch-st
Brilliant..... *G*	19/ 20/	18/6	2 0	-/4 Jan. '95	2 0 0	250,000	Queensland ..	Charters Towers.
Brilliant Block...*G*	1¾ 1⅞	1¾	2 0	-/6 Jan. '95	2 0 0	250,000	Queensland ..	3, Gracechurch-st.
Brilliant, St. Geo.	28/ 30/	28/-	0 10	6d. Dec. '94	0 6 3	72,000	Queensland ..	Charters Towers.
Brit. Brok. Hill *S*	5/6 6/6	5/6	5 0	—	5 0 0	240,000	N. S. Wales ..	Dashwood Ho., E.C.
Broken Hill Prop.	1¾ 1⅞	11⅛	0 8	1/- Jan. '95	0 8 0	960,000	N. S. Wales ..	Dashwood Ho., E.C.
Cashman Bril.... *G*	⅛ ⅜	⅜	1 0	—	0 15 0	6?,000	Coolgardie....	14, Sherborne ln. E.C
Carrington..... *G*	4/6 5/	2/9	12/6	—	0 12 6	100,007	Queensland ..	9, Tokenhouse Yard.
Con. G. M. of W. A.	15/- 17/6	15/-	1 0	—	0 12 6	90,000	W. Australia..	14, Hill st., Edinboro'
Coolgardie .....*G*	-/10⅝ 1/1⅛	-/10½	0 2	—	0 0 6	40,000	Coolgardie.....	Winchester House.
Craven's Cal. ... *G*	3/ 4/	3/-	0 6	-/3 June 94	0 4 8	100,000	Queensland ..	30 1, S. Swithin's-le.
Crown Bayley's..*G*	1/16 3/6 pm	1/16	1 0	—	0 10 0	80,000	Coolgardie.....	Bishopsgate Ho. E.C.
Croydon King B. *G*	3/- 5/-	3/-	0 5	—	0 5 0	60,000	N. Queensland	Leadenhall Bldg. E.C.
Cumbrind (New)*G*	6/- 6/6	7/	1 0	2/6 Dec, '87	1 0 3	184,490	Queensland ..	3-5, Gracechurch-st.
DayDawn B.&W.*G*	10/6 11/6	10/6	1 0	-/6 Mar, '93	1 0 0	498,400	Queensland ..	Winchester Ho.,E.C
Day Dawn P. C. *G*	5/0 5/6	5/3	1 0	-/6 Apr, '92	1 0 0	490,000	Queensland ..	4, Lombard-court.
Eaglehawk.....*G*	3/- 3/6	2/9	1 0	—	0 19 6	120,000	Victoria.....	3?, Lombard-street,
Empress Coolge. *G*	¾ ⅞ dis	⅞	1 0	—	0 10 0	90,000	W. Australia...	2, Tokenhouse bldgs
Eng. & Aus.Cop.Cu	1/16	1/16	2 0	2½ 1883	1 17 6	70,000	So. Australia	136, Palmerston-bldg
Etheridge .....*G*	-/1⅝	-/1⅝	0 5	—	0 5 0	324,290	Queensland ..	6-7, Queen-street-pl.
Frederick the Gt *G*	par. ⅛ pm.	p.⅛pm.	1 0	—	1 0 0	125,000	Victoria.....	St. George's House.
Glenrock .....*G*	1/9 2/3	2/-	1 0	—	1 0 0	225,000	N. Zealand ..	3-5, Queen-st, E.C.
Golconda .....*G*	1 2⅜	1⅛	1 0	—	1 0 0	73,000	W. Australia...	14, Sherborne ln., E.C
Great Boulder ...*G*	12/6 13/6	13/6	1 0	—	1 0 0	119,330	W. Australia..	3, Gracechurch st.
Golden Gate.....*G*	2/9 3/3	2/-	0 10	—	0 10 0	150,000	Queensland..	9, Tokenhouse Yard.
Hampton Lands...	2⅞ 3	2⅞	1 0	10/- Nov; '94	1 0 0	64,075	W. Australia..	1, Whittington Avue
Hampton Plains...	1 13/16 1 15/16	1 11/16	1 0	—	0 4 0	350,000	W. Australia..	29, S. Swithin's lane
Hannan'sBrwnHill	1⅜ 1⅝	1 7/16	1 0	—	—	—	W. Australia.	
Harrietville .....*G*	— —	—	1 0	-/6 July, '90	1 0 0	146,330	Victoria.....	6-7, Queen-street-pl.
Kaboonga .....*G*	2/9 3/3	3/	0 10	—	0 9 9	500,000	Queensland ..	70 71, Bishopsgate st.
Kangarilla .....*S*	4/6 5/6	2/6	1 0	—	1 0 0	88,275	So. Australia	68, Coleman-street,
Kapanga.....*G*	6/6 7/	7/-	1 0	-/6 Jan. '91	0 19 6	250,000	N. Zealand ..	9, New Broad-street
Kilkivan.....*G*	— —	1/6	1 0	—	1 0 0	81,392	Queensland ..	4, Coleman-street.
Kinsella .....*G*	18/9 21/3	18/9	1 0	—	1 0 0	80,000	W. Australia...	1, Adelaide-st. Avenue
Londonderry.....*G*	9/16 5/16 pm	9/16	1 0	—	0 15 0	467,000	Coolgardie....	3, Gracechurch-st.
L.& W. Aust. Expl.	1 1/16 1 3/16	1¾	1 0	20 p.c. Dec, '94	1 0 0	100,000	W. Australia...	28 & 29,S.Swi hin's la
Mawson'sRewrd.*G*	21/3 23/6	22/	1 0	—	0 10 0	80,000	W. Australia...	
Mills' Day Dawn*G*	1⅝ 1⅝	1¼	1 0	-/6 Jan, '55	0 15 6	300,000	Queensland ..	3, Gracechurch-st.
Mosman .....*G*	4/3 4/9	4/9	1 0	—	1 0 0	58,235	N. S. Wales ...	16, St. Helen's-place.
Mt. Lyshon ..... *G*	— —	—	1 0	-/6Dec. '90	1 0 0	157,989	Queensland ...	7, Draper's-gardens.
Mountain Maid *G*	2/- 3/-	2/-	0 10	—	0 6 3	56,000	Queensland...	Leadenhall Bldgs.
Mount Morgan *G*	2 1/16 2 3/16	2¼	1 0	-/6 Jan. '95	0 17 6	1,600,000	Queensland ...	50, Lime-street.
Mount Zeehan *SL*	-/6 1/-	-/6	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho, Cham.
N. Smithfield .. *G*	— —	—	0 10	2/6 Dec, '94	0 10 0	48,000	Gympie.....	Queensland.
New Queen ..... *G*	6/9 7/3	7/6	1 0	-/6 Apr., '94	0 19 6	156,915	Queensland ...	30, St. Swithin's-la.
PhœnixGold.Pile*G*	— —	—	0 5	-/9 Aug. '94	0 5 0	48,000	Gympie.....	Gympie, Queensland
Port Phillip .....*G*	-/3 -/3	-/3	0 5	—	0 5 0	200,000	Victoria	57, Moorgate-st., E.C.
Queen's Bthdy Un	9/- 10/-	9/-	1 0	—	0 12 6	75,000	Victoria	7-8, Gt. Winchester St.
ScottishAustralian	⅝ ⅞	⅝	1 0	14-5d. Nov.'94	1 0 0	200,00	N.S. Wales ..	Winchester Ho. E.C.
Sunburst.....*G*	— —	—	0 10	-/6 Mar. '92	0 10 0	150,000	Queensland ...	9, Tokenhouse Yard.
True Blue .....*G*	— —	—	1 0	-/3 July, '94	1 0 0	53,000	Australia	Leadenhall Bldg. E.C.
Victoria Associatn.	— —	—	1 0	-/3 Jan. '95	1 0 0	144,000	Char. Towers	6, Crosby-square
Victory..... *G*	7/6 8/6	8/-	0 5	-/6 Mar., '94	0 5 0	270,00	Queensland ...	32, Gresham-st , E.C
Waihi..... *G*	5⅞ 6⅛	6⅛	1 0	1/- Dec, '94	1 0 0	150,000	New Zea'and	11, Abchurch-ln E.C
Wentworth Ord.*G*	5/6 6/6	6/-	1 0	—	1 0 0	350,000	N. S. Wales ...	4-6, Throgmort. Av.
Went. Priority.. *G*	15/- 17/-	15/-	1 0	2/- Dec '94	1 0 0	150,000	N. S. Wales ...	4 6, Throgmort. Av.
W. Argentine.. *G*	2/3 2/9	1/9	1 0	—	0 19 6	150,000	N. Zealand ..	3-5, Queen-street.
W. Aust. Concesan	1⅞ 2⅛	1⅞	1 0	1/ Jan. '95	1 0 0	17,500	W. Australia...	33, Old Broad st., EC
W. Aus. Exploring	1/16dis 1/16 pm	1/16dis	1 0	—	0 15 0	160,000	W. Australia...	54, Old Broad st., EC
W.Australian G.P.	3⅝ 3¾	3 11/16	1 0	2/6 Dec., 94	1 0 0	65,000	W. Australia..	28 29, S. Swithin's-ln.
W. Aust. Mining	8/ 9/	8/	1 0	—	1 0 0	104,297	W. Australia..	157, Winchester Ho.
W. Mallina .. ...*G*	3/- 3/6	3/3	0 5	—	0 3 0	80,000	W. Australia..	Winchester House.
White Feather	2¾ 3⅛	2¾	1 0	—	1 0 0	60,000	W. Australia...	28 & 29,S.Swithin's in
Zeehan Montana *S*	— —	—	1 0	8d Aug., 94	1 0 0	66, 00	Tasmania	11, Queen Victoria st.
Zeehan Montana *S*	— —	—	1 0	5d Aug., 94	0 12 6	12,600	Tasmania	11, Queen Victoria st.

EUROPEAN MINES.

Alamillos ..... *I*	10/- 15/-	10/-	2 0	-/6 Oct. '94	2 0 0	35,000	Spain	8, Queen-street-place
Avala .. .. *Q*	0 ⅛	0	1 0	1/- May '93	1 0 0	150,047	Servia.....	4, Tokenho. Bldgs.
Consett Ore ..... *I*	5⅜	5⅜	1 0	5/- July '94	1 0 0	55,20	Spain	19, Grey-st., N'castle
English Cr. Spelter	⅜ ⅝	⅜	1 0	2½ % Aug. '94	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna ... ...*L*	17/6 22/6	17/6	2 0	1/- Oct. '94	2 0 0	25,000	Spain	6, Queen-street-place
Libiola.....*C*	3⅝ 3¾	3¾	5 0	2/6 Aug. 94	5 0 0	60,400	Italy	Dashwood Ho., E.C.
Linares .....*L*	3⅝ 3⅝	3¾	3 0	5/- Oct, '94	3 0 0	14,998	Spain	6, Queen-street-place
Mason & Barry...*C*	1¾ 2	1¾	5 0	2/- May. '94	5 0 0	185,172	Portugal	87, Cannon-street.
Oscar .....*C*	— —	—	5 0	—	0 4 8	117,240	Norway	8A, Austin Friars.
Pestarena .....*G*	4/6 5/6	5/	3 0	—	3 0 0	67,?00	Italy	6-7, Queen-street-pl.
Pontgibaud .....*SL*	— —	—	20 0	11/6 Dec. '94	20 0 0	14,000	Coueron, Fr...	6-7, Queen-street-pl.
Rio Tinto ..... *C*	14⅝ 14⅞	14 15/16	10 0	4/- Oct., '94	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	104 106	104	100 0	5% Jan., '95	100 0 0	£1892,740	Spain	30, St. Swithin's-lane
Do. (2nd do.)	102 104	102	100 C	5% Jan., '95	100 0 0	£1024,860	Spain	30, St. Swithin's-lane
Do. (3rd do.)	101 103	100	100 C	5 p.c. Jan., 95	100 0 0	£5 7,050	Spain	30, St. Swithin's lane
Ripanj .....*SQ*	8/- 10/-	7/-	1 0	—	0 19 0	95,000	Servia	120,Bishopsgt-st.Wn†
Tharsis.. ....*C Sul*	4¾ 4¾	4½	2 0	12½% Mar. '94	2 0 0	625,000	Spain	Glasgow.
West Prus Pre.pref	— —	—	10 0	5% Jan. 95	10 0 0	365	Germany	Walbrook Ho., E.C.
West Prussian Pre.	— —	—	10 0	5% Jan. '95	10 0 0	5,450	Germany	Walbrook Ho., E.C.
West Prussian Or.	— —	—	10 0	5% Jan. '95	10 0 0	14,050	Germany	Walbrook Ho., E.C.
Wohlfahrt .....*L*	— —	—	1 0	3% Dec. '94	1 0 0	99,834	Prussia	17, Victoria-st., S.W.
Wohlfahrt	— —	—	1 0	3% Dec, '94	0 10 0	9,000	Prussia	17, Victoria-st., S.W.

INDIAN AND ASIATIC MINES.

Name.	Closing Price, Jan. 25, 1895	Closing Price, Jan 18, 1895.	Par.	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Asia Minor Pref. *St.*	—	—	0 10	—	0 10 0	42,430	Asia Minor ..	2, Metal Ex. Bldgs.
Do. Ord. ...	—	—	1 0	—	0 2 0	51,584	Asia Minor ..	2, Metal Ex. Bldgs.
Balaghat Mysore*G*	4/6 5/-	4/9	1 0	—	0 19 0	160,000	India	6-7, Queen-street-p'.
Burma Ruby.....*R*	9/6 9/6	7/16	1 0	—	0 17 0	300,000	Burmah	Suffolk House, E C.
ChampionReef...*G*	41⅛ 43/16xd	41⅛	1 0	3/- Jan. '95	1 0 0	200,000	India	6-7, Queen-street-pl.
Colar Central .. *G*	-/9 1/3	-/6	1 0	—	1 0 0	200,000	India	Dashwood Ho., E.C.
Coromandel..... *G*	5/- 6/-	5/-	1 0	—	0 13 9	95,000	India	6-7, Queen-st.-place.
Deccan Mysor ...*G*	— —	—	1 0	—	1 0 0	200,000	India	34, Nicholas-lane.
Gemming&Mining	— —	—	2 0	—	1 7 6	19,594	Ceylon	183, Gresham House.
GoldFldsMysore*G*	19/- 21/-	19/-	1 0	1/- July '92	1 0 0	220,000	India	6-7, Queen-street pl.
Gold Fields Mys *G*	— —	—	1 0	—	1 0 0	150,000	Siam	19, St. Swithin's-lane.
Hyderabad Dec...	9 11/16 9 13/16	9 11/16	10 0	—	10 0 0	115,000	Deccan	16, St. Helen's-place.
Kempinkote GdFd	2/9 3/3	3/-	0 5	—	0 3 6	668,473	India	6-7, Queen-st.-place.
Mysore ..... *G*	2¾ 2⅞	2¾	1 0	1/- Nov, '94	1 0 0	250,000	India	6-7 Queen-street pl.
My. Harnhalli .. *G*	2/3 2/9	2/3	0 18 0	—	0 18 0	100,000	India	2, East India Avenue
Mysore Reefs ...*G*	5/- 5/6	5/6	1 0	—	1 0 0	134,788	India	6-7, Queen-street-pl.
Mysore West(N)*G*	14/- 15/-	12/6	1 0	—	0 19 0	127,408	India	Dashwood Ho., E.C.
Mysore Wynaad *G*	13/- 14/-	11/6	1 0	—	0 19 0	250,000	India	Dashwood Ho., E.C.
Nine Reefs .....*G*	2/9 3/3	3/6	0 10	—	0 10 0	50,000	India	6-7, Queen-street-pl.
Nundydroog.....*G*	1⅞ 2	1 15/16	1 0	1/6 Dec. '94	1 0 0	200,000	India	6-7, Queen-street-pl.
Ooregum (Df.O.)*G*	2 11/16 3 1/16	2	1 0	2/6 Nov. '94	1 0 0	145,000	India	6-7, Queen-street-pl.
Do. (10 % Pref.).	3⅜ 3⅝	3⅜	1 0	2/6 Nov. 94	1 0 0	95,536	India	6-7, Queen-street-pl.
Do. (10 % Pref.).	2⅜ 3	2⅜	1 0	2/6 Nov. '94	0 5 0	24,464	India	6-7, Queen-st.-place.
Panang Corun.. *T*	8/6 9/-	8/6	1 0	15% Apr. '89	1 0 0	203,070	Malay Penin.	Blomfield Ho., E.C.
Pahang Kabang *T*	1/16 1/16	1/16	1 0	—	1 0 0	394,760	Malay Penin.	4a, Jeffrey's sq., E.C
			0 4					
Yerrakonda .....*G*	3/3 3/9	2/9	0 4	—	0 2 6	—	Mysore	6 7, Queen-street-pl.

NORTH AMERICAN MINES.

Alaska Mexican...*G*	1 1⅛	1	$5	7 1-5d. Nov. 94	$5	160,000	Alaska.....	30, St. Swithin's-la
Alaska Treadwell*G*	2⅞ 3⅛	2⅞	$25	1/6 Jan., '95	$25	200,000	Alaska...	30, St. Swithin's-la.
Almada and T .. *S*	-/3 -/6	-/3	2/6	—	0 2 6	351,008	Mexico	6, Queen-street-place
American Belle...*S*	1/- 1/6	1/-	1 0	-/6 Mar. '91	1 0 0	398,890	Colorado	25a, Old Broad-street
Anglo Mexican ...*S*	— —	—	5 0	3/- Jan. '90	5 0 0	74,850	Mexico	23, College Hill.
Arizona (Pref.) Cu	10/- 10/3	10/	4 0	—	4 0 0	158,920	Arizona.....	74, Geo.-st , Edinbor
Do. 10 % Deben.	67⅛	63	100 0 0	7% Nov. '94	100 0 0	2,660	Arizona...	74, Geo.-st., Edinbor'
Big Creek ..... *Ay.*	2/6 3/6	2/6	1 0	1/- Dec. '91	1 0 0	50,000	Nevada	2, Pancras-lane, E.C.
California ..... *G*	— —	—	0 10	-/6 May '90	0 8 9	129,571	Colorado	St. George's Ho E.C.
Canadian Phos. *P*	— —	—	1 0	-/6 Nov.'90	1 0 0	73,334	Canada	155, Fenchurch-st.
Colorado Boy.. ...*S*	— —	—	1 0	—	1 0 0	112,491	Colorado	Abchurch-chbrs. E.C
Cortez .....*S*	— —	—	1 0	3 % Feb.'93	1 0 0	300,000	Nevada	Suffolk House, E.C.
Decatur.....*St.*	— —	—	1 0	—	1 0 0	32,500	Colorado	35, Queen Victoria-st.
Do..... (Pref.)	— —	—	1 0	—	1 0 0	12,500	Colorado	35, Queen Victoria-st
De Lamar.. .....*GS*	25/6 26/6	27/-	1 0	1/- Jan , '95	1 0 0	400,000	Idaho.....	6, Draper's-gardens.
Dickens CusterGS	1/9 2/3	2/3	1 0	—	0 19 9	420,000	Idaho.....	Winchester Ho. E.C
Elkhorn .....*S*	10/6 11/6xd	10/6	1 0	-/9 Dec. '94	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma .....*S*	-/9 1/-	-/9	0 5	—	0 5 0	403,618	Utah	15, Geo-st, Mansn. Ho
Flagstaff .....*S*	— —	—	1 0	—	0 18 9	240,000	Utah	Dashwood Ho., E.C
Fisk..... *G*	— —	—	1 0	6d May, 94	1 0 0	134,000	Colorado	5, Fenchurch st.
Garfield .. .. *GS*	— —	—	1 0	-/6 Dec. '88	0 19 6	98,185	Nevada	Suffolk House, E.C.
Golden Feather *G*	7/- 8/-	7/-	1 0	—	1 0 0	180,000	California ...	8 , Stephens Cs E C.
Golden Gate .....*G*	4/- 5/-	4/-	1 0	—	0 19 6	79,600	California ...	8t Stephens Cs E C.
Golden Leaf..... *G*	2/9 3/3	2/9	1 0	—	1 0 0	200,259	Montana	8, Draper's Gardens,
Golden Valley...*G*	1/3	1/3	1 0	—	0 19 0	55,507	Colorado	15, Angel Court.
Harquahala.... .. *G*	5/- 6/-	5/-	1 0	-/6 Oct., '94	1 0 0	300,000	Arizona	6, Draper's Gardens.
Ho'comb Valley *G*	2/- 2/6	2/3	0 5	—	0 5 0	540,000	California ...	14, Cornhill, E.C.
Idaho.....*GS*	3/6 4/-	3/3	0 5	-/2 Dec. 94	0 4 8	143,439	Idaho	140, Le denhall-st
Jackson Goldfields	2/4½ 2/7½	2/4½	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk .....*G*	1/- 2/-	1/-	1 0	-/6 Dec. '92	1 0 0	285,000	Montana	Dashwood House,
Kohinoor "B"*GS*	— —	—	1 0	-/6 June. '81	1 0 0	112,901	Colorado	Bloomfield Ho., E.C.
La Plata.....*S*	2/3 2/9	2/3	0 5	1/3 Oct. '82	0 4 3	405,000	Colorado	11, Poultry, E.C.
La Yesca.....*GS*	2/9 3/3	3/-	1 0	—	0 19 0	76 015	Mexico	20, Bucklersbury, E?
Maid of Erin ...*S*	4/6 5/6	4/8	1 0	4c p.h Sept'94	1 0 0	575,000	Colorado	43, Threadneedle-st.
Mammoth Gold ...	-/3 -/3	-/3	1 0	—	1 0 0	400,000	Pinal Arizona.	257, Winchester Ho.
Mesq. d'l Oro

"THE MINING JOURNAL" SHARE LIST—(Continued).

SOUTH AND CENTRAL AMERICAN MINES—(Continued).

Name.	Closing Price, Jan. 25, 1895	Closing Price, Jan. 18, 1895.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Santa Barbara ...G	—	—	0 10	1/3 Dec. '86	0 10 0	60,000	Brazil.....	Liverpool
Santa Elena .....N	⅞ 1⅛	⅞	5 0	5/- Oct. '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita .....N	3¾ 4¼	3¾	5 0	15% Apr., '94	5 0 0	20,000	Chili	Dashwood House, E.C
San Sebastian ...N	2⅝ 2⅞	2⅝	5 0	5/- Dec. '94	5 0 0	29,000	Chili	Dashwood House, E.C
Segovia .....G	—	—	5 0	—	0 4 0	160,000	Colombia	5, Copthall-buildings
S ore Pref.....G	—	—	1 0	10% Dec. '94	0 15 0	840	Colombia	23, St. Swithin's ln.
Sucre Ord.....G	—	—	1 0	6% Dec. '91	1 0 0	10,000	Colombia	23, St. Swithin's ln.
Tetuan .....G	—	—	1 0	—	0 19 6	200,000	Colombia	5, Copthall-buildings
Tolima "A" .....S	7⅛ 8¼xd	8¾	5 0	10/- Dec., '94	5 0 0	14,000	Colombia	18, Finsbury-circus.
Do. "B" .....S	7 7¼xd	7	5 0	10/- Dec., '94	5 0 0	6 000	Colombia	18, Finsbury-circus.
Vic. & Altamira ...	1/3 1/8	1/3	0 5	—	0 5 0	200,000	Venezuela ...	Broad-st. Avenue.
West Indian.....G	—	—	0 5	—	0 5 0	700,000	San Domingo	49, Queen Victoria-st
aruma .....G	—	—	0 5	—	0 5 0	261,422	Ecuador.....	1, Gt. Winchester-st.

AFRICAN MINES.

African Coal	6/- 6/6	5/3	1 0	—	0 16 6	—	—	—
African Gold Con.	11/- 12/-	11/-	0 10	20 p.c. Jan.'95	0 8 0	300,000	—	16, Tokenhouse-yard
Afrikander ..... G	1¼⅛ 1⅛⅛	1⅛⅛	1 0	—	1 0 0	40,000	Transvaal	19, St. Swithin's-lan,
Agnes Block..... G	9/- 11/-	10/-	1 0	—	1 0 0	78,507	Transvaal	54, Old Broad-street
Alexandra Estate G	6/3 6/9	6/9	1 0	—	1 0 0	225,000	Witwatersrd.	Warnford Court, EC.
Anglo-French Exp.	2⅛⅛ 2⅛⅛	2⅛⅛	5 0	10% Dec. 94	5 0 0	30,000	S. Africa	17, Dashwood House.
Appantoo ..... G	— —	—	1 0	—	1 0 0	77,585	West Coast ...	Dashwood House.
Aurora ..... G	16/- 17/-	16/6	1 0	5% Mar,'93	1 0 0	65,000	Witwatersrd.	8, Old Jewry.
Balkis Eersteling G	5/3 5/9	7/6	0 10	—	0 9 6	520,000	Transvaal	85, Gracechurch-st.
Balkis Land	4/9 5/3	5/3	0 10	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
Banket..... G	2/9 3/3	2/6	1 0	—	1 0 0	200,000	Witwatersrd.	Johannesburg.
Bantjes Reef ..... G	2⅜⅛ 2⅝⅛	2⅜	1 0	—	1 0 0	83,000	Witwatersrd.	Warnford-court.†
Barrett..... G	11/6 12/6	12/6	0 10	—	0 9 0	207,495	De Kaap	17, Basinghall-street
Bechuanaland Exp.	33/6 34/6	32/-	1 0	—	1 0 0	200,000	Bechuanaland	19, St. Swithin's-lane
Block "B" Lang.	18/- 19/-	13/-	1 0	—	1 0 0	535,000	Witwatersrd.	8, Princes-st. E.C.†
Boovsen Land . G	1¼ 2	1¼	1 0	—	0 11 0	95,000	Transvaal.....	4, Tokenhouse-bldg
Brit. S. A. Char. ..	44/6 45/6	45/6	1 0	—	1 0 0	2,000,000	S. Africa	19, St. Swithin's-lane
Buffelsdoorn ..... G	3⅛⅛ 3⅜⅛	3⅜⅛	1 0	—	1 0 0	250,000	Potchefstroom	8, Old Jewry.
Buluwayo Synd. ...	⅞ 1 pm	⅞	1 0	—	1 0 0	12,000	Matabeleland	10, Helen's Place.
Cape Asbestos	2⅜⅛ 2⅝⅛	2⅝⅛	1 0	—	1 0 0	50,311	Orange River	8, Minories.
Cape Copper C	1⅝ 1⅝	1⅝	2 0	1/3 Dec. '94	2 0 0	300,000	Cape Colony..	9, Queen-street-place.
Do. 6 % Pref. ...	2 2¼	2	2 0	1/3 Dec. '94	2 0 0	40,000	Cape Colony	9 Queen-street-place.
Cassel Colliery.....	3¾ 4	3¾	1 0	10pc Dec. '94	1 0 0	75,000	—	99, Cannon-street.
Cen. Montrose... G	1/- 2/-	1/-	1 0	—	0 18 6	69,000	Transvaal	15, George st. Mn. Ho.
Champ d'Or..... G	4⅜ 4⅝	4⅜	1 0	—	1 0 0	116,016	Witwatersrd.	8, Old Jewry, E.C.
Champ d'Or Deep G	19/- 20/-	23/-	1 0	—	1 0 0	275,000	Witwatersrd.	Fox st., Johannesbrg
Champ d'Or French	— —	—	1 0	—	1 0 0	117,499	Witwatersrd.	8, Old Jewry, E.C.
City and Suburb. G	16 16¾	16¾	1 0	4/- Jan. '95	1 0 0	75,000	Witwatersrd.	1, Crosby Square.†
Coetzeestroom ...G	3/- 4/-	3/9	0 8	25% Mar. '94	0 5 0	140,000	De Kaap	105, Leadenhall-street
Con. Bultfontein D	26/6 27/6xd	26/6	1 0	—	1 0 0	721,500	Griqualand W	62, Lombard-st.
Con. Deep Levels G	4⅛ 4⅜	4⅜	1 0	3¾% Sept. '94	1 0 0	187,250	Transvaal	30, St. Swithin's-lane.
Con. G. Fields S A.	3⅞ 4⅛	4	1 0	4/- June '94.	1 0 0	1,250,000	S. Africa	8, Old Jewry.
Do. 5½% Deben...	106 107	106½	5 0	15% Nov. '94	1 0 0	600,000	S. Africa	8, Old Jewry.
Crœsus Deep.....	2¾ 2¾	—	—	5½ Jan, '95	—	—	—	—
Crown Reef ..... G	9⅜ 9⅝	9¾	1 0	25% Nov. '94	1 0 0	123,000	Witwatersrd.	120, Bishopsgt st Wn†
De Beers Consol. D	18⅛ 18¾xd	18⅞	5 0	12/6 Jan. '95	5 0 0	789,791	Transvaal	62, Lombard-street.
Do. 5% 1st Deb.....	107 108	108	100 0	5% Jan. '95	5 0 0	£3,500000	Transvaal	62, Lombard-street.
Do. 5½% Bul. Ob.	105½ 106½	105	100 0	5½% Oct. '94	5 0 0	£720,100	Transvaal	62, Lombard-street.
Durban Roodept. G	6⅞ 7	6⅞	1 0	3/- Dec., '94	1 0 0	£125,000	Witwatersrd.	28, Leadenhall-bldgs
Eastleigh ..... G	1⅝⅛ 1⅞⅛	1½	1 0	—	1 0 0	240,000	—	14, Sherborne-lane.
East Rand..... G	51/8 52/6	52/6	1 0	—	1 0 0	570,000	Witwatersrd.	170, Winchester-ho.
Evelyn ..... G	1 1⅛⅛	1	1 0	10% Jan. '89	1 0 0	66,000	Witwatersrd.	28, Old Jewry, E.C.
Exploration	1⅝ 1⅞	1¾	1 0	1/- Dec. '94	1 0 0	148,000	S. Africa	30, S. Swithin's-ln.†
Exploring Co.	6¼ 6½	6¾	1 0	25/- Feb. '94	1 0 0	69,350	S. Africa	19, S. Swithin's-ln.
Ferreira ..... G	15¾ 15¾	15¾	1 0	50% Dec. '94	1 0 0	45,000	Witwatersrd.	120, Bishopsgt st. Wn†
Forbes Reef (Nw) G	3/6 4/6	3/6	1 0	—	0 19 0	105,000	De Kaap	45-6, Leadenhall-st.
F. Johnson & Co....	18/6 19/6	19/-	1 0	—	1 0 0	200,000	Mashonaland	8, Old Jewry†
Geldenhuis Deep G	6¾ 7⅛	7	1 0	—	1 0 0	265,000	Transvaal	30, St. Swithin's-lane.
Geldenhuis Est. G	5¾ 5⅞	5⅞	1 0	10% Oct. '94	1 0 0	187,500	Witwatersrd.	120, Bishopsgt st. Wn†
Do. Main Reef	17/- 18/-	17/6	1 0	—	1 0 0	150,000	Witwatersrd.	Warnford-court, E.C.†
Geldenhuis South.	14/8 15/6	16/	1 0	—	—	—	Witwatersrd.	—
George and May G	19/- 21/-	19/-	1 0	—	—	112,750	Witwatersrd.	Warnford Court, E.C
George Goch ...G	2¼ 2⅝	2⅛	1 0	—	1 0 0	100,000	Witwatersrd.	Johannesburg.
Ginsberg	19/- 20/-	20/-	1 0	—	1 0 0	130,000	Drietfontein	Warnford Court, E.C.†
Glencairn .....G	3¹¹⁄₁₆ 3¹³⁄₁₆	3¾	1 0	7½pc Dec. 94	1 0 0	200,000	Witwatersrd	2, Drapers-gardens.
Gold Estates T....G	3/6 4/6	3/6	1 0	15% Dec.'89	0 10 0	130,000	Transvaal	46, Queen Victoria-st
Gld. Fis, Deep...G	3⅞ 4	3⅞	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G. F. of Mashonld.	13/9 16/3	15/-	1 0	—	1 0 0	200,000	Mashonaland	19, St. Swithin's-ln.
G.F.Tierrad' Fuego	3/9 4/3	3/9	0 8	—	0 4 0	400,000	Mozambique...	2, Tokenhouse Bldgs.
Grahamstown .. G	16/6 17/6	16/-	1 0	—	1 0 0	150,000	Witwatersrd.	14, Throgmorton-st.
Graskop .....G	1/9 2/3	2/-	0 5	2½% Mar. '92.	0 5 0	500,000	Lydenburg ...	85, Gracechurch-st.
Griqualand W....D	7⅛ 7⅜	7¼	10 0	2 % Sept. '94	10 0 0	105,700	Transvaal	62, Lombard-street
Guy Fawkes..... G	8/- 9/	8/-	0 10	—	0 8 0	24,000	Manica	Broad-st. Avenue
Harmony (Pref) G	14/- 15/-	14/-	1 0	—	1 0 0	260,000	—	79½, Gracechurch-st.
Henry Nourse ...G	5⅛ 5⅜	5⅝	1 0	—	1 0 0	100,000	De Kaap	Warnford-court.
Joe's Reef ..... G	7/6 8/6	7/6	1 0	—	1 0 0	57,474	De Kaap	21, Mincing Lane.
Johannesburg G.F	3/8 4/8	3/6	1 0	—	—	—	Nr. Johannesbg	31, Lombard-st., E.C.
Johannesburg Par	3⅛ 3⅜	3⅜	1 0	—	1 0 0	99,537	Witwatersrd.	Johannesburg.
Jubilee .....G	8¼ 8¾	8¾	1 0	12½% Nov.,'93	1 0 0	21,000	Witwatersrd.	8, Old Jewry.†
Jumpers .....G	5¾ 6	5⅞	1 0	30% Dec. '94	1 0 0	30,000	Witwatersrd.	120, Bishopsgt st, Wn†
Kimberley .. ..D	par ⅛ pm	pr ⅛pm	1 0	25% Dec. '94	1 0 0	100,000	Witwatersrd.	19, Finsbury circus.
Kimberley Rdpt....	1⅞ 2	1⅞	1 0	—	0 10 0	98,672	Kimberley ...	2, Drapers-gardens.
Koffyfontein.....D	13⅛⅛ 13⅝⅛	14/6	1 0	—	1 0 0	125,000	Kimberley ..	4, Bishopsgate st reet
Langlaagte Est. G	4⅛ 4⅜	4⅛	1 0	—	0 5 0	50,000	Jacobsdaal ...	59, Holborn Viaduct.†
Do. Royal	4⅜ 4⅞	4⅜	1 0	2/- Dec. '94	1 0 0	467,000	Witwatersrd.	2, Drapers-gardens.†
				5% Sept. '93	1 0 0	100,000	Witwatersrd.	

AFRICAN MINES—(Continued).

Name.	Closing Price, Jan. 25, 1895	Closing Price, Jan. 18, 1895.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Lisbon-Berlyn ...G	5/- 5/6	5/3	2/6	—	0 2 6	883,233	Lydenburg ...	110, Cannon-street.
Llonsdale	9/6 10/6	9/6	1 0	—	—	—	—	—
London & S. A. Ex.	10¾ 10¾	10	0 10	25 pc Dec. '94	0 10 0	100,000	S. Africa	19, Finsbury-circus.
Luipaards Vlei Est.	15/ 16/	15/-	1 0	6% Mar. '90	1 0 0	319,093	Witwatersrd.	Warnford-court.†
Main Reef (New) G	14/- 15/-	15/-	1 0	—	1 0 0	300,000	Witwatersrd.	8, Old Jewry.
Mashon. Agency...	1⅝⅛ 1¹³⁄₁₆	1⅝⅛	1 0	—	1 0 0	100,000	Mashonaland	8, Old Jewry, E.C.
Mashon. Central..	— —	—	1 0	—	1 0 0	200,000	Mashonaland	8, Old Jewry, E.C.
Massi Kessi	12/- 13/-	—	—	—	—	—	—	—
Matabeleland	— —	—	12/6	—	0 12 6	75,889	Matabeleland	73, Basinghall St. E.C
May Con. (New) G	2¾ 2⅞	2¼	1 0	—	1 0 0	430,000	Witwatersrd.	4, Lothbury.†
Metropolitan (N) G	1¹³⁄₁₆ 1¹⁵⁄₁₆	1¾	1 0	—	1 0 0	75,000	Witwatersrd.	1, Crosby Square.†
Meyer & Charl....G	6⅝ 6⅞	7	1 0	31% Dec.,'94	1 0 0	71,687	Witwatersrd.	Warnford-court.†
Mines Trust	⅝ ¾	⅝	1 0	3% May '94	1 0 0	82,774	So. Africa	130, Winchester Ho.
Modderfontein . G	8⅞ 9⅛	8⅞	1 0	—	1 0 0	200,000	Witwatersrd.	Warnford-court.†
Montrose..... G	14/- 15/-	14/-	1 0	3/- Feb. '90	1 0 0	70,000	De Kaap	65, New Broad-street
Moodies G.&E....G	10/6 11/6	11/-	1 0	-/4 May '90	1 0 0	240,000	De Kaap	8, Old Jewry.†
Mozambique.....	24/8 25/6	26/-	1 0	—	1 0 0	400,000	S E. Africa ...	Broad-street House,
Namaqua C	16/3 18/9	16/3	2 0	2/6 July '91	2 0 0	194,351	Namaqualand.	34, Leadenhall-bldg.
New Aurora West G	15/6 16/6	16/6	1 0	5% Mar., '93	—	30,000	Witwatersrd	1, Crosby Square
N. Belgium Land...	4/3 5/6	5/-	1 0	—	0 17 0	167,362	Waterberg ...	53, Cornhill.
New Black Reef ...	8/6 9/-	8/6	1 0	—	1 0 0	76,000	Witwatersrd.	9, King William st
New Chimes..... G	2⅜ 2⅝	2¼	1 0	5% Oct., '94	1 0 0	70,000	Witwatersrd.	8, Old Jewry, E.C.
New Clewer Estate	1¹³⁄₁₆ 1¹⁵⁄₁₆	1¹³⁄₁₆	1 0	10% Jan. '95	1 0 0	100,000	Lydenburg ...	120, Bishopsgt st. Wn
New Orœsus..... G	2¾ 2¾	2¾	1 0	5 % Aug. '92	1 0 0	195,000	Langlaagte ...	4, Bishopsgt.-st, Wt.
New Edwin Brav	3/- 4/-	3/-	7 0	—	7 0 0	65,000	De Kaap	23, College Hill
New Gordon..... D	4/6 5/6	5/-	1 0	5% Dec. '89	1 0 0	560,250	Griqualand ...	110, Cannon-street.
New Heriot .....G	8 8¼	8	1 0	20 p c Dec. 91	1 0 0	195,000	Witwatersrd.	1, Crosby Square.†
New Jagersf. ...D	17½ 17¾	17⅝	10 0	1 p. Nov., '94	10 0 0	100,000	Transvaal	5, Copthall-buildings
N. Kleinfontein G	4⅛⅛ 4⅜⅛	4⅜	1 0	12½pc Dec,'94	1 0 0	150,000	Witwatersrd.	8, Old Jewry.
New Klerkedorp ..	7/3 7/9	7/9	0 10	—	0 8 0	—	Transvaal	110, Cannon-street.
New Louis D'Or.. G	3/- 3/6	3/3	1 0	—	1 0 0	100,000	Witwatersrd.	53, New Broad-stree
New Primrose ...G	6 6¼	6⅛	1 0	20% Dec. '94	1 0 0	230,000	Witwatersrd.	2, Draper's-gardens.
New Rand.....	par. ⅛ pm.	—	1 0	—	1 0 0	110,000	—	Bartholemew-lane.
New Rietfontein G	3¾ 3⅝	3⅝	1 0	—	1 0 0	160,000	Witwatersrd	Warnford-ct., E.C.
New S. Augustine D	4/6 5/-	4/9	1 0	—	0 19 3	234,583	Griqualand W	30-1, St. Swithin's-la
New Salisbury ...G	3 2¾	3¼	0 10	—	1 0 0	93,000	Witwatersrd	1, Crosby-square.†
New Spes Bona...G	32/6 33/-	37/-	1 0	—	0 14 0	113,801	Witwatersrd	24, N. John-st., L'pl
N. Ophir Concess.	3/- 4/-	3/-	1 0	—	0 18 6	111,857	E. Coast Africa	31, Lombard-street.
New Virginia ...G	5/3 5/9	7/-	0 10	—	0 10 0	48,335	Transvaal	26, Budge-row, E.C.
Nigel ..... G	5¾ 5¾	5¾	1 0	10% Dec. '94	1 0 0	160,000	Witwatersrd.	1, Crosby-square.
Nourse Deep.....	5½ 5⅝	5½	1 0	—	1 0 0	375,000	—	120, Bishopgt.-st., Wn.
Nyassa (Bearer) ...	17/6 22/6	17/6	1 0	—	1 0 0	—	Mozambique	Bartholemew House
Oceana	2¾ 2⅝	2½	1 0	25/- Nov.'89	1 0 0	326,000	Transvaal	4, Sun Court, E.C
Oceana Develpmnt	⅛⅛ ⅜⅛ pm	10/-	1 0	—	0 7 6	50,000	Transvaal	4 Sun Court, E.C.
Orange F, S.E. ... D	3¾ 4¼	4¼	1 0	1/- Sept., '94	1 0 0	284,000	Orange F. State	10, Moorgate-street.
Orion..... G	3¾ 3¾	3¾	1 0	25% Jan. '95	1 0 0	30,000	Witwatersrd.	8, Old Jewry.
Otto's Kopje..... D	6/- 6/6	5/9	1 0	—	1 0 0	437,888	Kimberley ...	110, Cannon-st., E.C.
Paarl Central ... G	26/- 27/-	27/-	1 0	—	1 0 0	138,750	Transvaal	4, Sun Court, E.C.
Paarl Ophir	— —	—	1 0	10p.c. Aug.,'94	1 0 0	12,000	Tweffontein ...	120, Bishopsgt st, Wn†
Pardy's Mozambq.	1¾ 1⅞	32/6	0 10	1/- Dec. 94	0 10 0	13,000	S. E. Africa ..	Cape Town.
Piggs Peak, New G	9/6 10/6	10/6	1 0	—	0 17 0	230,326	Swaziland	Broad St. Avenue.
Potchefstroom... G	7/ 8/	7/6	1 0	—	1 0 0	161,000	Potchefstroom	6, Queen-street-place
President Land ..	5/6 6/6	5/6	1 0	—	1 0 0	193,325	Transvaal	19, Bury-st., E.C.
Princess Estate G	1¹¹⁄₁₆ 1¹³⁄₁₆	1¹³⁄₁₆	1 0	—	1 0 0	72,046	Witwatersrd.	17, Basinghall Street
Randfontein ..... G	24/6 25/6	21/6	1 0	—	1 0 0	1,916,500	Witwatersrd.	33, Cornhill, E.C.
Rand Mines ..... G	21¼ 21¾	21¼	1 0	—	1 0 0	332,708	Holborn Viaduct.†	59, Holborn Viaduct.†
Read's Drift ..... D	15/- 17/6	15/-	1 0	—	1 0 0	57,000	Transvaal	120, Bishopsgt st. Wn†
Robinson ..... G	7⅝ 8	7⅝	5 0	5% Dec. '94	5 0 0	543,750	Transvaal	19, Finsbury circus.
Roodepoort Deep	2⁹⁄₁₆ 2¹¹⁄₁₆	2¹⁄₁₆	1 0	—	1 0 0	110,000	Witwatersrd.	28, Austin Friars, E.C
Roodepoort Un. G	4 4¼	4¼	1 0	10p.c. Dec. '94	1 0 0	100,000	Witwatersrd.	8, Old Jewry, E.C.
Sheba ..... G	33/6 34/6	32/-	1 0	1/- Sept. '94	1 0 0	614,450	Lydenburg ...	Warnford-court.†
Silati ..... G	9/- 10/-	8/-	—	—	0 17 6	625,000	Zoutpansberg.	85, Gracechurch-st.
Simmer & Jack...G	11¾ 11¾	12⅛	1 0	10% Jan. '95	1 0 0	85,000	Witwatersrd.	4, Sun Court, E.C.
S. A. Gold Trust ..	3¾ 4	3¼	1 0	6/6 Jan. '95	1 0 0	220,000	South Africa..	8, Old Jewry.
S. A. Trust & Fin.	13/6 14/3	14/-	1 0	-/9 May 93	0 10 0	413,386	—	8, Old Jewry.
Southern Land.....	5/- 6/-	5/-	1 0	—	0 15 0	80,000	Griqld. W. & Brit. Bech	1, Crosby Square.
Southern Land.....	10/ 12/-	10/	1 0	—	1 0 0	20,000	—	19, St. Swithin's-ln.
South West Rand	1¼ 1⅜	1⅜	1 0	—	—	—	—	—
Spitzkop (New) G	15/- 16/-	16/6	1 0	—	0 19 6	99,070	Lydenburg ...	Lydenburg ...
Stanhope ..... G	2¾ 2⅞	2¾	1 0	20% Jan. '95	1 0 0	34,000	Witwatersrd.	15, Bishopsgt-st, Wt,
Sutherland R. ...G	22/- 23/-	24/-	1 0	—	0 19 6	220,000	Zoutpansberg.	1, Crosby Square.†
Teutonia..... G	1 1⅛	1	1 0	—	1 0 0	96,000	Witwatersrd.	3, Budge-row, E.C.
Thistle Reef ..... G	-/6 1/-	-/6	0 5	—	0 4 0	150,000	Barberton	8, Old Jewry.
Trans. Coal Trust...	31/6 32/6	25/6	1 0	1/- Sept. '94	1 0 0	439,965	Witwatersrd.	15, Angel-court, E.C
Trans. Est. & Dev.	18/6 19/6	1/6	1 0	—	1 0 0	285,700	Transvaal	Broad-st. House, E.
Trans. Gold Exp. G	3⅜ 3½	3⅞	1 0	1/- Dec. '94	1 0 0	250,000	Transvaal	76, Old Broad-st. E.C.
Trans. Land.....	7/6 8/6	7/6	1 0	—	1 0 0	79,915	Transvaal	Suffolk House, E.C.
Trans. Land.....	3/- 4/-	—	—	—	0 15 0	169,993	Witwatersrd.	Suffolk House, E.C.
Treasury..... G	— —	—	1 0	12½% Sep.'91	1 0 0	26,000	So. Africa	33, Cornhill.
Turffontein Est. ..	— —	—	1 0	2½ Nov. '94	1 0 0	45,007	Transvaal	Johannesburg.
Un. Ivy Reef..... G	20/- 22/6	22/6	1 0	2½ Jan. '94	1 0 0	45,000	Witwatersrd.	130, Winchester Ho.
U. Langlaagte(N) G	2¾ 2⅝	2½	1 0	—	1 0 0	100,000	—	110, Cannon-street
United Pioneer.....	24/- 25/6	24/	1 0	—	—	—	Witwatersrd.	23, St. Swithin's-ln.
Van Ryn ..... G	4⅛ 4¾	4¾	1 0	—	1 0 0	75,000	Witwatersrd.	—
Victory Hill .....G	— —	—	1 0	—	1 0 0	58,984	De Kaap	1, Crosby-square.†
Village Main Reef	5 5¾	5⅛	1 0	—	1 0 0	108,000	Witwatersrd.	Portland House, E.C.
Wassau .....G	— —	—	1 0	—	1 0 0	132,000	Gold Coast ...	3, Old Jewry.
Wemmer .....G	7¼ 7⅜	7	1 0	—	1 0 0	190,000	Witwatersrd.	147, Cannon-street.
Willoughby's Con	1⅝ 1¾	1⅝⅛	1 0	10% Nov. '91	1 0 0	55,000	Mashonaland	19, Bury-street,††
Witwatersrand ..G	3¹⁄₁₆ 3¹⁄₁₆	3⅛	1 0	—	1 0 0	700,000	Witwatersrd.	3, Copthall-bldgs.
Wolhuter .....G	5¾ 6	5⅞	1 0	—	1 0 0	250,000	Witwatersrd.	19, Bury-st., E.C.
Wolverand.....G	⅝⅛ ⅝⅛	⅝⅛	1 0	—	1 0 0	120,000	Transvaal	Warnford-court.†
Wolverand.....G	— —	—	1 0	10 p c Apr., '94	1 0 0	18,750	Transvaal	5, Copthall-buildings
Worcester .....G	4⅛ 4⅜	4⅛	1 0	2/- Apr., '94	0 18 0	38,021	Witwatersrd.	5, Copthall buildings
Zambesia Explora.	3 3¼	3⅛	1 0	20% Jan. '95	1 0 0	90,727	Transvaal	8, Old Jewry.†
				—	1 0 0	45,000		13, George-st., E.C.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(BY OUR SPECIAL CORRESPONDENT).

THE Mining Exchange has, within the last 10 days, been the scene of a revival, which may be looked upon as a foretaste of what will inevitably come when the investing public are assured that the price of tin has seen the bottom. The spurt fully demonstrates the truth of the argument we have frequently urged—that the prices of shares are abnormally low, and that even the smallest demand is bound to produce a very marked advance on the figures which have recently been quoted. It was obvious that Dolcoaths at £34 per share were sufficiently tempting to anyone with capital and a little pluck, and several people seem to have realised the fact simultaneously. The result was that towards the end of last week there was a strong demand from several quarters for Dolcoath shares. Orders came on the market which could not be executed, for the simple reason that holders could not afford to sell. A fair number did change hands, and all that were on the market were quickly picked up. The price rose from £34 to £49, though there has since been a little reaction. Other shares participated in the advance, particularly Tincrofts, which were in strong request. Most other shares were also firmer, and sellers retired.

COOK'S KITCHEN has, as we anticipated last week, just managed to escape for the present, at all events, the fate which very recently seemed to be quite inevitable. This is not the first time that Cook's Kitchen has been perilously near abandonment; there are few mines in the county which have had a more chequered career. More than once before in its history shares have been practically given away at one meeting, and enquired for at very high prices at the next, and there are those who prophesy that even within the next four months there will be a strong reaction in favour of what is believed to be the oldest tin mine in Cornwall. The working for tin has been singularly unfortunate; and even when the lode (which is the Dolcoath main lode) has been productive, it has in the upper levels soon lost the tin, and they have had very little more than mere "sniffs" of tin all the way down. The present improvement is regarded by mining experts as most important, They have been going through a very fine elvan course, and the significant feature is that the lode is now making tin under the elvan. At the meeting both Captain Josiah Thomas and Captain Hosking, the mining experts of the Tehidy office, expressed a very high opinion of the lode. In the interests of an industry which sorely needs encouragement at the present time, we hope the discovery will justify the most sanguine of the opinions which have been expressed concerning it. Mr. J. C. Daubuz referred rather significantly at the meeting to the high standing charges at the mine. This is a matter which in these times particularly requires the closest scrutiny. Captain Josiah Thomas will doubtless see the desirability of effecting further economies if possible. The shareholders are to be complimented on the manner in which they faced the heavy balance which was against them by the making of a call sufficient to practically clear the book. The future of Cook's Kitchen depends entirely on the permanence or otherwise of the improvement they have now in the bottom of the mine.

WHEAL BASSET meeting on Tuesday passed off satisfactorily. The shareholders were once more in the fortunate position of being able to do without a call. Mr. F. Oats, the largest shareholder, presided, and spoke in a more hopeful tone than we have recently been accustomed to at Cornish mine meetings. In the course of his very practical remarks he advocated the employment of further labour-saving appliances in connection with Cornish mining, the improvement of pumping and stamping machinery—and, in fact, a general supersession of existing mining plant by brand-new appliances. This is rather a large order, and almost suggests that Mr. Oats is judging Cornish mining by the standard of De Beers. Mr. Oats is, of course, right in principle, but the question is, as we have pointed out in commenting on similar suggestions emanating from other speakers, one of ways and means. No doubt if the present depression in tin mining continues much longer, Cornish people will have to face this, and even larger questions. There is that, for instance, hinted at by Mr. F. Harvey—the amalgamation of existing mining setts. Many people are beginning to see that some such economies as would inevitably result from amalgamations of this sort will have to be effected if Cornwall is to compete with the cheaper production of tin in other countries. The chief difficulty appears to be the settlement of some basis of agreement between the various bodies of adventurers and lords concerned. It is a very big question, and one which, we believe, some of the influential gentlemen in the county, who are interested in mining, are steadily keeping in view.

THE Mysore West and Mysore-Wynaad companies have sold in India the gold obtained during the months of September and October last for £521 8s. 2d. nett.

SERIOUS FIRE AT DOLCOATH MINE.—On Tuesday night, about a quarter past ten, a fire was discovered in the account-house at Dolcoath Mine. The alarm was instantly given, and word was dispatched for the Camborne Fire Brigade. Several of the hands who were working "night core" were soon on the spot doing their best to extinguish the fire, but, despite their efforts, it spread with great rapidity; and, seeing this, they set to work to remove such of the furniture and other contents of the building as they could get. Captain Josiah Thomas (the manager of the mine) and his two sons were early on the scene, and shortly before 11 o'clock, the fire brigade arrived and got to work with commendable promptitude, under the direction of Captain Rowe. It was soon seen that the office on

THE MINERAL WEALTH OF SIBERIA: ITS GOLD PRODUCTION.

(*Continued from page 76.*)

THE Verkhneoudinsk region of the Transbaikal province is situated along the rivers flowing into Lake Baikal, and from it through the Angara into the Yenisei. The gold deposits of this region are situated in its south-eastern portion, near the Chinese frontier, along the tributaries of the River Chika, which falls into the River Selenga. These deposits lie in narrow valleys, surrounded by high mountains covered with forests. Although the number of deposits under exploitation is gradually increasing, still the yield of gold remains very limited.

The gold workings belonging to the system of the River Lena are situated in the regions of Verkholensk and Kirensk in the Government of Irkutsk, in the region of Bargouzinsk, in the Transbaikal province, and in the region of Olekminsk, in the province of Yakutsk. Although the upper courses of the Lena abound in gold deposits, they are generally poor; and, therefore, the number of deposits under exploitation, and the amount of gold produced in the Verkholensk and Kirensk regions is inconsiderable. The gold workings of the Bargouzinsk region are situated to the east of Lake Baikal, along the upper courses of the River Vitima, which flows into Lena from the right side. Although, during the last 10 years, the number of deposits under exploitation has more than doubled, yet the number of men employed has scarcely varied, and the amount of gold produced has, if anything, decreased.

Of all the above cited regions appertaining to the system of the Lena, the most important in respect to the yield of gold and number of men employed, is the Olekminsk region, situated in the south-western portion of the Yakutsk province. All the gold deposits of this region are included between 53° and 60° north latitude and between 130° and 183° east longitude from Paris, and are bounded—to east by the River Olekma, to the north and north-west by the River Lena, to the west and south west by the River Vitima, and finally to the south by the Yablonovy mountain chain, which is here the watershed of the tributaries of the Lena and Amour. This region is intersected in all directions by the spurs of the Mouisk and Yablonovoy mountains, and has quite an Alpine character. One of the chief spurs of the Mouisk Mountains extends parallel to the River Vitima, and this divides the Olekminsk region into two systems, the Vitimsk and the Olekminsk. The Vitimsk system lies to the north-east of Irkutsk at a distance of 1700 versts from it. The Olekminsk system extends in the same direction still further across the watershed of the Lena and Vitima, so that in reality this watershed forms the true boundary between the two systems. Both systems are at an equal altitude above the level of the sea, nor is there any geological difference between them, as the same rocks predominate in both. The gold deposits, known up to the present time, almost blend into one another, and the distance across the intermediate mountain chain does not exceed 15 versts.

Among the rivers along which the gold deposits of the Vitimsk system are situated, the River Bodaibo deserves particular attention, as all its system is exceedingly rich in gold, and the richest deposits are situated over a comparatively small area in this system. There are also rich deposits near the upper courses of the gold-bearing tributaries of the Vitima, beyond the watershed along the tributaries of the rivers flowing into the Lena. Among the tributaries of the Lena which water the Olekminsk system, the most noteworthy are the systems of the Great and Little Patomo; and of the tributaries of the Olekma, the most notable are the rivulets of Zhuya, Bogolonak, Khomolkho, and Vacha.

The gold obtained from the Olekminsk-Vitimsk deposits is distinguished for the size of its grains, so that nuggets of ¼ pound, and more in weight are frequently found. Besides this, the gold from these deposits is distinguished for its somewhat regular crystalline form. With respect to the mode of occurrence of the gold-bearing strata, it should be mentioned that the gold of the Olekminsk-Vitimsk deposits has the peculiarity of being distributed in alluvial deposits in two, and not unfrequently even in three layers. The average richness of the gold-bearing sands during recent years has been in the Olekminsk system from 1¼ to 1¾ zolotnik, and in the Vitimsk system from 3 to 4¾ zolotniks per 100 pouds of sand. However, in some workings the amount of gold is as much as 5½ zolotniks and more, per 100 pouds of sand. The thickness of the gold veins is from 2 to 15 feet, and the thickness of the superincumbent dirt or peat varies between half a sagene to 20 sagenes. The largest workings are chiefly concentrated in the deposits situated at a greater depth below the surface; as in the Olekminsk and Vitimsk systems these deposits are the richest.

The greater part of the peat and gold-bearing sand is in a perpetually frozen state, but sometimes the gold-bearing rock stuff is unfrozen, and lastly, a combination of the one and the other is sometimes met with, but this phenomenon has not been sufficiently investigated for it to serve as a guide in the exploitation of the deposits in which it occurs. There are frequent instances where the frozen state of the soil is taken advantage of for sinking shafts in those deposits which lie at some depth, and which are exploited by underground workings.

The gold workings of the Vitimsk and Olekminsk systems have their stations or chief depôts on the banks of the Lena near the mouths of the River Vitima. The workings of the Olekminsk system are situated at a distance of about 350 versts from the depôts, and vehicular communication can only be carried on in winter over the ice; and in the summer the goods have to be transported on the backs of camels. For working, the Vitimsk system is much more advantageously situated, as in summer there is a steamer communication from the mouth of the Vitima, to a distance of 300 versts up the River Bodaibo, where the gold workings of this system begin; moreover, the mines are connected by a carriage road. The miners of the Olekminsk diggings are chiefly hired from Irkutsk, whence also are the provisions and articles necessary for the workings and miners are bought.

Notwithstanding the comparative infancy of the gold industry in those regions, and the difficulties which are encountered in the severity of the climate, dearness of labour, and the distance from any inhabited place, still the production of gold has developed rapidly, and in the Olekminsk region, reached a maximum of 939 pouds in 1880; indeed, since 1866 this region has stood first among all the gold regions of Siberia in respect to its yield of precious metals.

1889 the workings of both systems of the Olekminsk region employed 2340 horses and 2100 reindeer. The native Tunguz and Yakuts transport the building timber and pit props required at the mines, by reindeer. Passing now to a review of the gold deposits in the vast river province of the Amour, it should be mentioned that the Nerchinsk mining region is in the uppermost courses of this system, along the tributaries of the Shilka and Argouna. The gold deposits of the Nerchinsk region are subdivided into four administrative regions: the Chitinsk, Akshinsk, Nerchinsk, and the Nerchinsk metallurgical regions, situated between 128° and 137° east longitude and 49° and 53° north latitude. Veinous gold was discovered in the Nerchinsk region so far back as 1777, but owing to the poorness of the ore it was not worked. In 1838 promising alluvial deposits were discovered in the valley of the River Kara, the left hand tributary of the Shilka. These workings, which are exploited to the present day, long remained the only ones of any consideration in the district. In 1853 the Shakhtalinsk deposit was opened out; and in 1865 the deposits along the rivulet Chernaya Ougruma were discovered. The latter remain the richest to the present time. Since 1865, when the Nerchinsk region was opened to private enterprise, the production of gold has gradually increased. At present gold is extracted in the eastern portion of the Transbaikal province, in the Akshinsk region along the system of the Rivers Onon, Ingoda, and Nercha, and in the Nerchinsk region along the system of the Rivers Ougruma, Gazimoura, Ounda, Nercha, and Shilka. Veinous gold is also worked in the Chatinsk and Akshinsk regions. The alluvial deposits of the Amour and Littoral provinces are situated in the basins of the left tributaries of the Amour, with an area lying approximately between 52° and 56° north latitude and 120° to 130° east longitude from Paris.

From their geographical position the gold deposits of the Amour may be divided into several groups, lying in the following order from west to east. The gold-bearing district of the first group is situated on the watershed between the Amour and the Zea, in the neighbourhood of Albazine, at a distance of 100 versts from the Amour. The deposits of this group were first discovered in the Amour province in 1866, by the well-known mining engineer, Anosov, who during 12 years endured every privation in an untiring exploration of the mineral wealth of the region of the Amour. At that time this region was entirely unknown to industry, and was at a distance of 500 versts from the inhabited localities of the Transbaikal province. During the first year, 1868, following the institution of gold workings in this district, 50 pouds of gold were extracted and the average richness of the deposits was found to be over three zolotniks per hundred pouds of sand. The second group of deposits in the gold-bearing region is comprised by the tributaries of the rivers Gilui and Brianta, which fall into the river Zea from the right side. This group comprises some of the richest deposits now known, and was also discovered by Anosov. The exploitation of the gold deposits in this district, where over the whole area between the rivers Gilui and Brianta there is no stream which is not in some degree gold bearing, was begun in 1876, and in 1883 a vein deposit was also discovered.

The third group of deposits is situated along the system of the River Selendzha, the left tributary of the river Zea. In 1874, a whole series of deposits was discovered here after the indication of Anosov. The fourth group, comprising the system of the upper courses of the River Niman, the right tributary of the River Boureya, was also discovered after the indication of Anosov, in 1875. A series of deposits was disclosed here at a distance of 600 versts from the junction of the Boureya and Amour. These deposits proved to be exceedingly rich in gold, and the fame of their discovery soon penetrated into industrial spheres, and attracted numerous prospecting parties to this perfectly desert region. The same mountain chain that gives rise to the Selendzha and Niman, also form the source, only on its eastern side in the Littoral province, of the River Amgoun, which falls into the Amour from the left about 90 versts' distance from its mouth. In 1868, the fifth and most eastern group of the deposits of the Amour gold-bearing region was discovered in the system of the River Amgoun. The gold-bearing beds in the Amour deposits are under very favourable conditions for exploitation. They lie at an inconsiderable depth; the average thickness of the peat is about one sagene, and the thickness of the gold-bearing bed half a sagene. Hence all the deposits are exploited by open workings, and only in certain of those along the River Niman, where the thickness of the peat exceed 20 feet, and of the gold-bearing bed 9 feet, are underground minings carried on. Besides the actual localities belonging to the system of the Amour within the borders of the Littoral province in its southern portion, numerous gold deposits have been found in many parts of the continent, and also on the Island of Askolda, near Vladivostok, where the gold-bearing seam forms the bottom of the sea, and whence a gold-bearing sand is extracted.

The gold workings of all the above-cited groups of the Amour system have their depôt stations on the Amour, Zea, Boureya, and Amgoun. There is a steamboat communication on the three last-named rivers for a distance up to 400 versts from their mouths. The remaining distance of 200 to 400 versts is partly traversed in boats and partly on horse-back along paths leading through the midst of the taiga to the gold workings. In winter only is there the possibility of a more convenient communication between the mines and their depôt stations, whence they obtain all their provisions in the winter. Owing to this circumstance the cost of labour along the system of the Zea amounts from 1000 to 1200 roubles per head, and on the Niman it even comes to 1500 and 1900 roubles. Notwithstanding these very disadvantageous economic conditions the gold workings of the Amour province are gradually enlarging their production, and, moreover, the number of deposits under exploitation is constantly increasing.

The method of exploitation, and, in general, the technical side of the gold industry, depends upon whether the gold is extracted from alluvial or veinous deposits. In the alluvial deposits the superficial layer consists of an alluvium known as peat. The thickness of this peat varies considerably, and the relation between the thickness of the peat and that of the auriferous alluvium determines the system of working followed for extracting the gold. Before entering upon the actual exploitation of the auriferous beds, exploratory workings are conducted for determining the thickness of these beds and their richness in gold. In those parts of Siberia where the soil is unfrozen, the exploration of the deposit is generally made in the winter by means of pits sunk into the frozen ground. The method adopted is as follows:—In autumn the pits are laid out and sunk to the water level, when the work is stopped, and the pits left open for a certain number of days, depending upon the degree of cold, the depth of the pit, and the kind of soil. The pits are carefully protected from snow. When the pit has sufficiently frozen through, a wood fire is lighted at the bottom, and when the bottom of the pit has thawed to a depth of about 1 foot, the thawed layer is easily removed with a pick and shovel. Notwithstanding the severe frosts, the freezing of the pits can only be carried on to a depth of 4 sagenes. In those localities where the soil is frozen the exploratory pits do not present such difficulties, as they are made in hard ground and without the inflow of water. The specimens of the ground taken for assay from the bottom of the pit are washed in buddles, in warm winter quarters erected upon the workings. The assays are taken at about each half-foot through the thickness of the deposit.

In the Yeniseisk region the winter exploring parties consist of five men with one overseer, and cost about 3000 roubles. Such a party is able to sink about 150 pits 3 sagenes deep. The removal of the peat is carried on during the autumn or winter, or else simultaneously with the extraction of the sand, or else slightly in advance of it. If the peat be removed in the autumn or winter a thin layer is left over the gold-bearing alluvium to protect it against the influence of the severe frosts, and then this layer is removed in the spring. Sometimes advantage is taken of the spring floods to wash away a portion of the peat. Only in a few rare instances is the peat, containing a very small amount of gold, washed throughout its whole extent; as a rule, it is carried away and thrown aside. The extraction of the auriferous sand is conducted in the simplest manner possible by means of picks, crowbars, and shovels. However, in the Olekminsk region the use of explosives in the mining works is yearly increasing, and the annual consumption of dynamite at the gold workings of this region amounts to about a thousand pouds. The auriferous sand is transported to the washing machines in two-wheeled carts drawn by horses, along a natural road, or along a road made of logs. In some of the gold regions the transport at certain workings is done in trucks along a tramline. The rare application of mechanical motors and appliances is frequently made a subject of reproach to the Siberian gold workers, but it is necessary to remember, not only the situation of the workings in the most remote localities, void of any road capable of transporting heavy weights, but also the entire absence of any mechanical machine or other industrial works in Siberia, which could furnish the gold workings with the requisite tools, mechanism, machines, or appliances. The carriage of such articles from the Urals is exceedingly expensive, and sometimes doubles and triples their cost. Nevertheless, at some of the workings in the Olekminsk region and Amour province, there is a comparatively large application of mechanical appliances in the place of hand-labour. This is particularly observable in the workings of the Amour system, where there are large gold mining companies with sufficient capital at their disposal. Moreover, at many of the workings in the Olekminsk region, the sand, gravel, and peat is raised and transported by means of chain gear along a tramline. But it should be observed that if tramlines, transport by endless steel ropes, and even Lartig roads are met with in these regions, it is chiefly owing to the extreme dearness of horses and their feed.

(*To be continued.*)

NEW ISSUES.

THE MATABELELAND DEVELOPMENT COMPANY (LIMITED).

The capital of this company is £300,000, in 300,000 shares of £1 each. According to the prospectus, which appears elsewhere, the company "has been formed to acquire and develop 125 square miles of land, carrying the right to all minerals therein, under the laws of the British South Africa Company, of which 75 square miles are in Matabeleland and 50 square miles in Mashonaland." There is little doubt," adds the prospectus, "that this concession is the most extensive mineral concession yet granted by the British South Africa Company, having been given as part of the consideration for the purchase by that company of the land grant and other rights over the whole of Matabeleland and Mashonaland obtained from King Lobengula with the concurrence of the British South Africa Company. Registration certificates for all the land and the minerals, subject to prior rights, have been obtained, and the official survey of the land is now being made. Mr. H. A. Piper, a mining engineer of considerable experience, is now in Matabeleland in charge of the property, and will proceed at once with the systematic prospecting of the two large areas, with a view to the disposal of portions thereof in suitable blocks to subsidiary companies. The areas were selected under the directions of Mr. Renny-Tailyour, who was upon intimate terms with Lobengula, and spent many years in, and had an exceptional knowledge of, the country."

THE RHODESIA GOLD FIELDS (LIMITED).

The capital of this company is £1,000,000, in 500,000 preferred shares and 500,000 ordinary shares of £1 each. The company has been formed, says the prospectus, "to acquire, by subscription or purchase, share or other approved securities in companies or associations in, or having an interest in, the territories of the Chartered British South Africa Company, and generally to promote the development of the industries and enterprise already inaugurated in Rhodesia and British South Africa. The company will, in short, carry out in the Chartered Company's territories what has been so successfully accomplished on the Rand and elsewhere by the Consolidated Gold Fields of South Africa (Limited) and the South African Gold Trust (Limited). The reports of the Chartered British South Africa Company, and other companies interested in South Africa, show that in Mashonaland 1,722,274 acres of valuable agricultural land have already been located and surveyed, and in Matabeleland nearly 5,000,000 acres have already been located, that 66,000 gold claims, aggregating over 1800 miles of gold reefs, have been registered, on some of which development is being vigorously pushed forward, while large areas of coal and iron deposits have been already discovered. The undeveloped wealth of Rhodesia is now an accepted fact, and the directors join in the general belief in its future prosperity, and believe that a very satisfactory return will be derived from the investment of money in carefully-selected British South Africa securities. The expenses of formation of the company are limited to ½ per cent. on the capital of the company, and no payment will be made either for promotion-money, underwriting, or other commissions."

PORT TALBOT RAILWAY AND DOCKS COMPANY.

The authorised share capital of this company is £600,000, and "it has been formed," says the prospectus, "for the following objects:—(1.) To acquire the existing harbour and docks at Port Talbot, in the South Wales coal field, and to equip them with the best modern appliances for the shipment of coal, and for the import trade. (2.) To construct a new dock with deep water lock and piers, and to equip it with new tips and the best modern appliances for shipping coal, and for the import trade. (3.) To construct railways about 15 miles in length, connecting the extensive coal fields in the Llynvi and Garw Valleys with Port Talbot, and opening up large coal fields at present undeveloped. The company has acquired from Miss Talbot 154 acres of freehold land adjoining the docks, in consideration of a royalty of ½d. per ton on all minerals and goods shipped to and from the docks. The company has unlimited rights of user of this land, which surrounds the dock, and will afford ample and convenient space for the erection of works and warehouses, and for every possible requirement. This arrangement is materially better than than the corresponding arrangements in existence at Cardiff, Barry, and Penarth. The existing harbour and dock works have been acquired for the sum of £50,600, payable in ordinary shares of the company, and the company have secured from Miss Talbot a lease for seven years from the 25th March, 1895, at a rent of £1000 a year, of the wharf and land (34 acres in extent), with 4500 feet of water frontage, now in the occupation of Messrs. Wright, Butler, and Co.; and with the option of acquiring her interest therein at any time during the term at the price of £30,000."

CAPE GOLD EXPORT.—Cape Town, January 23: Messrs. Donald Currie and Co.'s steamer, *Grantully Castle*, takes for England gold to the value of £125,000.

STAR OF THE EAST GOLD MINING COMPANY, LIMITED.

THE capital of this company, which is on the eve of flotation, is £150,000, divided into 150,000 shares of £1 each. The prospectus, of which we have received an advanced copy, says, "this company is formed to acquire, work, and further develop the gold mining claim, No. 344, known as the 'Star of the East,' in the Murchison Gold Fields, Western Australia, the total area being about 25 acres. A company already exists, and has been at work for over 12 months, with most satisfactory results. The ore crushed to 28th November, 1894, amounted to 4050 tons, yielding 8100 ounces of gold. A 20 stamp battery is now erected and running. It is proposed to pay quarterly dividends, commencing from the 30th April next.

"For the six months ending 31st May last, dividends of £8000 were paid to the shareholders, and this with only 10 stamps at work. The reef is stated to be a true fissure lode, varying in width from 8 to 18 feet, carrying gold more or less through the whole formation. A cable received from Perth on the 28th November last states that the total amount of ore crushed amounted to 4050 tons, yielding 8100 ounces of gold, all material being crushed from a reef 15 feet thick. The cable adds that Mr. Dick, the present manager, reports that all ore from the lower workings shows considerable signs of improvement. Taking the yield of stone at 2 ounces to the ton, and with a 20 stamp battery at work, the net profit, after deducting London management expenses, should exceed £50,000 per annum, equal to over 33 per cent. on the capital.—Machinery: A 20 head battery is now erected and in full working order, together with winding plant. Water plentiful.

"The following report to the directors and the mine manager's report, will supply full and all necessary information.

DIRECTORS' REPORT.

29th June, 1894.

GENTLEMEN,—Since our last meeting, on December 28th of last year, very satisfactory results have been achieved by the company, and under these circumstances your directors feel great pleasure in laying before you an account of the company's operations for the past six months, and also the certified balance-sheet for the same period. As a result of the half-year's working of the mine, two dividends of 1s. each have been paid to th shareholders, totalling the large sum of £8000. The winding plant, mentioned in our last report, duly arrived at the mine, and has been of great service to the mining manager, who has reported very favourably upon the work it is doing. Since the battery started work 1450 tons of stone have been crushed for the satisfactory yield of 3563 ounces 10 dwts. 18 grains, averaging 3 ounces 3 dwts. per ton. The stone at present being raised is reported to be of a high grade, and it is confidently expected that the returns from it will quite equal, if not excel, those already mentioned. The question of adding another 10 head to our battery has engaged the careful attention of your directors, and after consulting with the mining manager on the subject, who strongly advised their purchase, it was decided to procure a complete 10 head battery and necessary gearing. In order to facilitate the sinking of the main shaft, raising of stone, &c., it was deemed advisable to erect poppet heads, so the order for these and the battery was placed with Messrs. J. Martin and Co., of Gawler, South Australia. The whole of this plant is now at Mullewa, and active steps are being taken to get it carted to the mine without any delay. Owing to an unfortunate breakage of the two spur wheels, the battery stopped work on April 24th, and did not resume crushing for some weeks. It was a fortunate occurrence that just about this time Messrs. Martin and Co. dispatched, at our respect, a capable engineer to erect the new machinery, and also to take complete control of all machinery on the mine. New gearing had been dispatched to the mine to take the place of that which was broken, and we have heard by the last mail from the fields that the gearing and the engineer had arrived safely on the mine, and that crushing was to start on the 12th inst., so we may expect to hear shortly the result of the first clean up. It may be of interest to hear that the water at the mine still continues fresh, and that the mining manager considers there is ample supply for the 20 heads and all our other requirements.

G. W. LEAKE, Chairman.

MANAGER'S REPORT.

Murchison, June 30th, 1894.

When the adjoining lease east became the property of the company, the original leases were surrendered and a 25 acre lease taken out, the maximum allowed by the regulations. Various advantages accrued from this alteration, the length along the line of reef becoming over 22 chains. It gave ample room for stacking tailings, making pits, buildings or other work that may become necessary by increased workings, &c. The reef has been opened up by two shafts, a main shaft and No. 2 shaft as an air shaft. The main shaft, about 440 feet from the west boundary of the lease, is put down on the lode to a depth of 92 feet, being 7 feet by 5 feet in dimensions, close timbered from the drives at water level 55 feet to the top. The air shaft is 123 feet east of the main shaft, put down to water level, 6 feet by 3 feet 9 inches, and cross timbered. These two shafts have been connected at water level by a drive from 4 feet upwards, taking out part of the lode. A stope was started in this drive near the main shaft, and a break has been made through to a trench on the surface. The reef in the stope has been taken out from 12 to 16 feet wide, and all put through the battery as broken down. A trench on the surface was put in between the two shafts, as it was an easy means of obtaining stone before the arrival of winding gear. A drive has been put in west from the main shaft at water level to a distance of 74 feet, thus opening up the reef for a distance of about 200 feet, and a depth of 92 feet. The workings prove the reef to be from 10 to 18 feet wide, carrying gold all through. Of course, it is richer in parts than others, but a very fair idea of what may be expected from it in the future can be formed from crushings up to date. On the continuation of the reef downwards, as it shows every promise of doing with the same quality, the company can look forward to years of prosperous working. From 55 feet to the present depth of the main shaft the supply of water continued to increase, until at the present time there is nearly enough water for all purposes without retaining or re-using any. The crushing plant consists of a ten-head battery, with one Berdan pan, and is situated 110 feet south of the main shaft, is on the lease and connected with the main shaft by an elevated tramway. The stone is shot into tubs in the levels, run on rails to the shaft and raised by means of a winding plant at the main shaft, thence carried direct by truck or tramway to battery paddock, by this means minimising handling. The machinery is in very good repair, and may be expected to run for a long time without need of new parts, excepting of course, stamper shoes, dies, and such like. There are three pits for the conservation of water of a capacity of about 65,000 gallons, and a tailings pit. A tramline has been laid down for carrying away the tailings from the pit. A shaft to water level on the Grand Old Man lease when it became the property of the company, is situated 136 feet east of the air shaft, and will serve in future as an air shaft. A blacksmith's shop, &c., was erected near the main shaft. It is 24 feet by 20 feet, built of galvanised iron. A building, in all 39 feet long by 12 feet wide, built of bats and covered with iron has been built for store-room, office, and residence.—Yours faithfully,

L. R. MENZIE (late) Mine Manager.

Copy cable from Chairman of Directors of Star of East Mine, W.A.,
13th September, 1894.

Star crushed to date 2400 tons for 8250 ounces gold value 67s. per ounce. Last crushing 356 ounces 10 stamps. In directors' report clerical error 3563 ounces should read 4563.

Star of the East Mine.—Copy of cablegram received from Perth,
28th November, 1894, from Mr. Neil McNiel, director.

Total amount crushed 4050 tons, yielding 8100 ounces of gold, all material being crushed from a reef 15 feet thick. Dick manager reports all ore from the lower workings shows considerable signs of improving.

In the *Financial News* of the 25th inst. we see that Messrs. Barker and Co., of Finch-lane, have received a telegram from their Perth agent, in which it is stated that the crushings of the Star of the East to date were 9100 ounces. Besides the colonial directors' and the late mine manager's reports, there is also a very strong report from Mr. C. J. McCulloch. A cable from the Hon. W. E. Marmion, late Minister of Mines, dated 23rd inst., says:—"Mine best reputation; Murchison dividends £12,000."

— Messrs. N. M. Rothschild and Sons announce that, in accordance with instructions received from the Bank of California (San Francisco), dividend coupon No. 21 of the ALASKA-TREADWELL GOLD MINING COMPANY (LIMITED) will be paid by them on and after the 28th inst., at the rate of 1s. 6d. (37½c.) per share.

— A special meeting of the WITWATERSRANDT GOLD MINING COMPANY, LIMITED (KNIGHT'S), will be held at Johannesburg, on the 26th prox., to consider a proposal to increase the capital of the company to £300,000 on the following terms, which have been accepted subject to confirmation, viz.:—37,500 shares guaranteed at £2 12s. 6d.; shareholders to have option of 30,000 for three weeks on the same terms in proportion to their holding; guarantors to have the option of the balance of the shares for 12 months at £2 12s. 6d.

COLON GOLD MINES (LIMITED)

(IN LIQUIDATION.)

We have received from the secretary the following copy of a circular issued to the shareholders:—

"We have the pleasure to inform you that the new company under the same name as the old company, but with a nominal share capital of £50,000 only has now duly been incorporated in accordance with the resolutions for reconstructing the old company which were passed and confirmed by the shareholders of the old company in December last. The agreement for reconstruction has since been adopted and executed in the precise terms of the draft agreed to by the old company. The contents of it have already been explained to you, and the agreement *in extenso*, as also the Memorandum and Articles of Association of the new company, can be inspected at the office.

"We would remind you that all the assets and liabities of the old company by this agreement become the property of the new company. The assets comprise more than 2 square miles of land, containing eight mines already denounced, plenty of timber, a sufficient water supply, a ditch 17 miles in length (which alone cost the old company £14,700), and a thorough equipment of plant, buildings, and fixtures (valued in the last balance-sheet at some £2000); while the liabilities can be discharged by the 6d. per share payable on application, leaving the balance of 1s. per share (equal to £10,000 of the nominal share capital) available for working capital and settlement of the pollution question. This settlement must be only a question of time, and we send herewith, as promised by the Chairman at the confirmatory meeting, an extract from the valuable report of Mr. Jenner (H.B.M.'S. Minister to Colombia) just furnished to the British Foreign Office. We are now in a position to call upon the directors of the new company to allot within a limited period to the old shareholders the same number of shares (credited with 3s. 6d. per share as paid thereon) in the new company as they held in the old company. One of the objects of the reconstruction being to reduce the former excessive share capital, the new shares are of the nominal value of 5s. (instead of £1 as formerly), but the proportion of each member's interest in the concern of course remains unchanged. It is intended hereafter to consolidate these 5s. shares into £1 shares. Before any such shares are issued, the agreement in respect of the same will be filed with the Registrar of Joint Stock Companies in pursuance of the statute, so that after payment of 6d. per share on application, the only liability will be 1s. per share; but this 1s. is not to be called up for at least one year from this date, unless in the meantime a settlement of the pollution question shall have been arrived at. We enclose a form of application for shares, which please fill in, and send without delay to the new company's bankers, together with a cheque of 6d. per share, payable on application. As a registered proprietor of shares in the old company, you are entitled to apply for an allotment of the same number (or any less number) of shares in the new company, being 5s credited with 3s. 6d. per share. You will also receive herewith a form of renunciation, which will enable you to transfer your interest in the old company to any nominee. In case of nomination the application form for shares must be signed by the nominee.

"Please note that, in pursuance of the agreement for reconstruction, the period of 14 days from the date of this notice has been fixed, within which you may notify whether or not you accept all or any of your proportion of shares in the new company, and that all shares not accepted within that time shall be deemed to be rejected, and may be sold in accordance with the terms of the said agreement. Although notices of dissent from four shareholders only, holding altogether 225 shares out of the total number of 200,000 have been received, we anticipate that out of more than 1600 shareholders a few will not apply for the shares to which they are entitled by reason of their being executors, trustees, or for other reasons; and in pursuance of the powers conferred on us by the reconstruction agreement, we propose to send out to each of the shareholders who shall so request, forms of tender for any shares not so taken. Kindly, therefore, inform us whether, in the event of any shares not being applied for, you desire a form of tender to be sent to you."

REPORTS FROM THE MINES.

**** We find it necessary to announce that, owing to the vast numbers of mines, reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.*

BRITISH MINES.

CARN BREA.—January 18: Highburrow East. The 334 fathom level crosscut is driven south of Harvey's shaft 15 fathoms. At a distance of 13½ fathoms south of the shaft we met with elvan, the north or footwall of which is underlying south about 5½ feet in a fathom. We are forcing on the driving through this with all possible speed in the hope of finding the lode to the south, which according to the bearing of the lode driven on in the 322 fathom level Highburrow west should be still south of the 334 crosscut. The 322 fathom level is driven east of Harvey's shaft 7 fathoms. The lode as we extend east is improving in character, and in the last 6 feet driving has produced some good stones of tin. We are of opinion that as we drive east under the productive ground passed through in the 310 fathom level we shall meet with a lode of value and thus prove the continuation of its productiveness underneath the elvan. The 310 fathom level is driven east of crosscourse 18 fathoms. Lode worth £15 per fathom. For the last 50 fathoms driving of this end the stuff has produced about 56 lbs. of tin to the ton of stuff. This ground has been driven through and communicated by 2 rises to the 286 fathom level for 22 fathoms in height since we put our new compressor to work in July last. From this ground and end two-thirds of the tin returned from Highburrow east is at present produced.—Highburrow west. The lode in the 298 end east of rise on south part of lode is worth £12 per fathom. The lode in rise and stope in back of the 298 fathom level west is worth £18 per fathom.—Old Sump. The 244 end is being driven east of crosscut on Druia's north lode, and is, as previously reported, opening up tribute ground. We have 6 pitches working on tribute on Teague's lode at tributes, varying from 10s. to 13s. 4d. in the £. As mentioned in previous reports we have had many hindrances to contend with since our last meeting, which have interfered with our workings and returns. We are now apparently getting over these, and hope for the remainder of the quarter to have more successful working.—(Signed), W. T. White, John Daddow, Wm. Thomas, John Penhall.

DEVON GREAT CONSOLS.—William Clemo, January 24: Wheal Anna Maria, Engine shaft. In the stope in the bottom of the 110 fathom level east the lode is looking well, and is yielding 12 tons of good mundic per fathom. In the stope in the back of the 110 fathom level east there is also a good productive lode, turning out 8 tons of copper ore and 6 tons mundic per fathom.—Field shaft. The stope in the back of the 130 fathom level west, on the main lode, is producing 8 tons of mundic per fathom. The lode in the bottom of the 130 fathom level west, on the south lode, is a good lode, yielding 12 tons of mundic per fathom of fine quality.—Wheal Josiah. Richards' shaft. In the stope in the bottom of the 115 fathom level east the lode will produce 10 tons mundic per fathom. The stope in the bottom of the 115 east, No. 2, will yield 8 tons of mundic per fathom.—Agnes's shaft. The stope in the back of the 103 fathom level west is producing 2 tons of copper ore, and 2 tons of mundic per fathom.—Wheal Emma, Thomas shaft. In the stope in the bottom of the 100 fathom level east, the lode is large, and is yielding 2 tons of copper ore, and 10 tons of mundic per fathom. In No. 2 stope in the bottom of the 100 fathom level east, the lode is also large, and is turning out 2 tons of copper ore, and 12 tons of mundic per fathom. The stope in the back of the 100 fathom level east is worth 1 ton of copper ore, and 8 tons mundic per fathom.—Inclined shaft. The stope in the back of the 150 fathom level east is producing 2 tons of copper ore, and 4 tons of mundic per fathom.—Inclined shaft. The stope in the back of the 150 fathom level east is worth 2 tons of copper ore and 3 tons of mundic per fathom. The stope in the back of the 112 fathom level west is yielding 2 tons of copper and 5 tons of mundic per fathom. In the stope in the bottom of the 110 fathom level west, the lode will produce 1 ton of copper ore and 5 tons of mundic per fathom.—New shaft, new south lode. The stope in the bottom of the 130 fathom level east is producing 2 tons of copper ore and 3 tons of mundic per fathom. In No. 2 stope in the bottom of the 130 fathom level east the lode will yield 2 tons of copper ore and 3 tons of mundic per fathom.—Watson's. Owing to the heavy rain and the rapid thaw of snow which fell last week our large wheels have been considerably clogged during the present week, but notwithstanding this drawback to 5 fathoms below the 136 fathom level, we hope the wheels will now go on working with increased speed.

LEADHILLS.—W. H. Paull, January 21: Brown's vein. At the 160 fathom level going north of Jeffrey's shaft the vein continues of a promising character, and at times yields good saving work for the dressing floors. The same level south of Wilson's shaft is on vein 4 feet wide, composed chiefly of spar and stone unproductive for mineral. The stope over this level south of Jeffrey's shaft is producing 20 cwts. of ore per fathom. The three stopes over the 145 fathom level north of Jeffrey's shaft are yielding on an average 28 cwts. of ore per fathom. The vein in drift south over the 130 north of Jeffrey's shaft has improved, and is now worth 30 cwts. of ore per fathom. The vein in the 115 fathom level driving north of Jeffrey's shaft is improving in character, contains a good mixture of spar and a little water is issuing from the forebreast. No. 2 stope over this level north is on vein 4 feet wide, and will produce 25 cwts. of ore per fathom. The 100 fathom level south of Wilson's shaft is going forward at a fair rate; vein in forebreast 4 feet wide, a very kindly end, but without ore. In crosscut east at the 100 south of Wilson's shaft we are meeting with joints containing a hard quartz, but no other change therein. In drift over the 100 south of Wilson's shaft, the vein is worth 30 cwts. of ore per fathom. No change in the 85 fathom level going south, vein still unproductive. The stope in this level, south of said shaft, will produce 50 cwts. of ore per fathom. The vein in drift over the 70 fathom level, south of Wilson's shaft, is worth 40 cwts. of ore per fathom. The various other stopes are without any material change, and the same remark may be applied to Gripp's adit going south on Sarrowcole vein.

LOMA.—The secretary reports that he has by this mail received an invoice from the mine superintendent of gold weighing 86·5 ounces, valued at £320. The superintendent writes as follows: Mine. The cleaning of cut gave 36 ounces of amalgam, this, with the 160 ounces referred to in my last, gave a bar of 86·5 ounces, equal $1600·25. The ditches are now giving little or no trouble, and by repairing a high bridge near the mine we may look on all as in good working order. We have had a very considerable amount of blasting to do this run that we might clean the cut. At present we are running a 4½ inch nozzle, and shifting a good body of gravel. At the Soto Mine we are now getting a face on the gravel bank, and it pans out well; the gravel gives from 6 to 25 good colours in the pan. The reservoir is being rammed, and to complete same is now only simply a matter of filling it in and making an overflow on top of same.

PESTARENA.—Mid-monthly report:—Ends. The 55 east on No. 1 lode is worth 4 tons of 2 ounces 10 dwts. ore per fathom. The 70 east on branch of caunter carries a small vein of pyrites on each wall, but as yet produces no ore to value. In the 90 west on No. 1 lode the branch is somewhat smaller, being now worth 2 tons of 1 ounce 10 dwts. ore per fathom, but is soon expected to improve again. The lode in the 140 end west on No. 5 is still hard, but has widened considerably, being 1·20 metre, and is intermixed with small veins of pyrites.—Crosscuts. In the 90 south, at Acquavita, another branch about 30 centimetres wide has been passed through. This is probably the hanging wall, the branch reported on the 3rd inst. being the footwall of the same lode, which has a width of about 2 metres. There has not yet been time to ascertain whether this is a new lode, or one that has been already explored in some of the levels above. No change has taken place in either the 55 north or south at Acquavita, the 70 north or the 130 north, since last reported. Nothing further has been met with in cutting into the north of the A and B lodes at the 70 fathom level, and an end will now be driven east on the branches already intersected.—Stopes. The value of these continues to be quite equal to what was reported on the 3rd inst.—Stabioli Mine and Kint Concession. Owing to an almost continuous snowfall during the past three days, which has rendered the roads impassable, no report can be made on these for the present.—Machinery. The repairs to the hoisting machine will be completed this evening and work resumed. Six of the upper mills have been stopped and those at Pozzone started to replace them.—Transport of mill-stone. This is being delayed owing to the snowfall, which up to the time of writing is 1·50 metres in depth, but will be resumed as soon as practicable.—(Signed) W. Hénwood Trelease.

SOUTH CONDURROW.—January 23: We have not yet intersected the lode in the bottom of Marshall's shaft. It is doubtless thrown down south by the engine lode. As we cannot sink deeper before putting down another pump, we intend to set the shaftmen to cut a trip plat at the 168 fathom level. We have begun to open on the flat lode west at the 168, where it has a promising appearance, and is worth £8 per fathom. The rise above the midway level at Marshall's is worth £10 per fathom. We have begun to sink a winze below the 153 to meet the rise referred to. The stope in the back of the 153 is worth £10 per fathom. The 163 end west is letting out more water than usual, but the lode is not so productive as it has been.—(Signed) William Rich, William Thomas, Fred Rich.

SOUTH FRANCES UNITED.—January 22: Setting report. To rise against Daubuz's shaft above the 246 fathom level west of Pascoe's by six men and three boys with a boring machine at £8 10s. per fathom. Lode worth £7 per fathom. To rise above the 246 west of crosscourse by six men and three boys with a boring machine at £7 10s. per fathom. Lode worth £17 per fathom. Stope in back of this level west of crosscourse is worth £17 per fathom. Stoping by 24 men at 4s. 6d. per ton. Stope in back of the 205 fathom level west of Marriott's is worth £9 per fathom. Stoping by six men at 4s. 6d. per ton. Stope in back of the 144 west of Grenville's is worth £8 per fathom. Stoping by six men at 3s. 6d. per ton. Stope in back of the 134 west of Grenville's is worth £9 per fathom. Stoping by nine men at 4s. 9d. per ton. No. 1 stope in bottom of the 124 fathom level west is worth £11 per fathom. Stoping by nine men at 5s. per ton. No. 2 stope in bottom of this level is worth £10 per fathom, stoping by six men at 4s. per ton. Rise in back of this level by four men at £10 per fathom, lode worth £11 per fathom. Stope in back of this level is worth £10 per fathom. Stoping by four men at 4s. 9d. per ton. The 114 fathom level to drive west of Grenville's by four men at £6 per fathom. Lode worth £10 per fathom. A winze to sink below this level by four men at £5 per fathom. Lode worth £9 per fathom. Daubuz's shaft to sink below

the 160 fathom level to be carried 14 feet long and 7 feet wide by 18 men at £28 per fathom. In our tribute department we have 42 pitches working by 127 men on tributes, varying from 8s. to 13s. 4d. in the £, the standard for tin being £36 per ton.—William Hooper, John Opie, Richard Williams, William Henry Richards.

WEARDALE.—Report on Weardale Company's Mines for week ending January 19:—Groverake. Opening out Armstrong's old rise from 30 fathoms level, we have now holed to crosscut. The crosscut south from Adamson's drift to above rise is also completed. Firestone drift east, sparry vein about the same for ore, worth 10 cwts. per fathom. Groverake cubic fathom stopes worth 10, 10, 8, 12, 14, 14, and 18 cwts. per fathom. Tribute ore raised for the week, 22 bings.—Boltsburn. In crosscutting south from old rise above Watts level there is not much change, but the ground still looks flatty. Stopes in north flats worth 36 and 38 cwts. per fathom. Stopes in south flats worth 36, 45, 34, 30, 28, 30, 16, and 20 cwts. per fathom. —Greenlaws. Nattrass Gill drift, stope unchanged, worth 16 cwts. per fathom. Watson's drift, vein 4 feet wide, composed of spar, hard rider, and other vein stuff, no ore to value. Lowe's drift, slatey hazel drift, west from rise, vein 3 feet wide, worth 16 cwts. per fathom. East from rise, vein 3 feet wide, a little better for ore, worth 14 cwts. per fathom. In the crosscut in scar limestone in R. Lowe's rise we have cut a vein 5 2-3 fathoms off the lead north. The vein is 2 feet wide, composed of spar and ore, worth 8 cwts. per fathom. Lee's sump stopes worth 32 and 20 cwts. per fathom. Greenlaw's tribute ore for the week returned at 14 bings.—Sedling. Driving 64 level east vein about 3 feet wide, of spar and rider, mixed with ore, worth 16 cwts. per fathom. 64 level west strong vein of plate rider, floor spar, and a little ore. Stopes above the 64 level east worth 14 and 14 cwts. per fathom. Ore raise for the week, 58 tons. The dressing floors and smelt mill are standing on account of the snow block.

WEST KITTY.—January 24: The lode in the 108 fathom level west is worth £6 per fathom. The lode in the 94 fathom level west is worth £8 per fathom. The lode in the 84 fathom level west is worth £10 per fathom. The lode in the 60 east, south of slide, is worth £11 per fathom. The lode in the 60 west, south of slide, is worth £16 per fathom. In driving east and west at the 50 fathom level the lode is worth £7 per fathom. The stopes and tribute pitches are about the same as reported last. Thomas's shaft is sunk about 6 fathoms below the deep adit. We are getting on very well with putting in the engine at Thomas's.—(Signed) Joel Hooper, John Williams.

COLONIAL, INDIAN, AND FOREIGN MINES.

CARRINGTON.—The manager writes under date December 4: —"I have let a contract to drive the No. 1 south-east level 50 feet with four men in two shifts, the company to land the dirt for the contractors, and to provide the engine drivers."

D'ARCY ESTATES.—Report, dated December 15: Main shaft sunk 7 feet; total depth, 224 feet; diorite still very hard. Main shaft portion 3, sunk 35 feet, through weathered diorite, carrying small stringers of quartz, all of which prospects well.

DE LAMAR.—From Captain J. W. Plummer's monthly report for December: Mining. Ore-breaking department. Hamilton vein above the 2nd level. Average width of vein 4 feet, assaying $26·30 in gold and $2 in silver, equals $28·30 per ton.—Hamilton vein above the 3rd level. Average width of vein 5 feet, assaying $28 in gold, and $5 in silver, equals $33 per ton.—77 feet vein above the 5th level. Average width of vein 2 feet, assaying $16·50 in gold and $3·50 in silver, equals $20 per ton. —77 feet level above the 7th level. Average width of vein 7 feet, assaying $15 in gold and $4 in silver, equals $19 per ton.—77 feet vein above the 8th level east. Average width of vein 3 feet 9 inches, assaying $4·50 in gold and $19 in silver, equals $23·50 per ton.—77 feet vein above the 8th level west. Average width of vein 6 feet, assaying $21·50 in gold and $1·25 in silver, equals $22·75 per ton.—77 feet vein above the above the 9th level intermediate. Average with of vein 7 feet, assaying $24·50 in gold and $7·50 in silver, equals $32 per ton.—No. 5 vein, above the 6th level. Average width of vein 3 feet 6 inches, $18 in gold and $1·10 in silver, equals $19·10 per ton. —No. 5 vein, above the 6th level hanging wall section. Average width of vein 1 feet 6 inches, assaying $30 in gold and $6 in silver, equals $36 per ton.—No. 5 vein, above the 8th level. This block of stoping ground is finished.—No. 5 vein, above the 9th level. Average width of vein 4 feet, assaying $17 in gold and $5·50 in silver, equals $22·50 per ton.—No. 6 vein, above the 9th level. Average width of vein 2 feet, assaying $21·75 in gold and $8·75 in silver, equals $30·50 per ton.—No. 7 vein, above the 7th level. Average width of vein 5 feet, assaying $21 in gold and $3 in silver, equals $24 per ton.—No. 7 vein, above 9th level. Average width of vein 2 feet, assaying $23·75 in gold and $9·50 in silver, equals $33·25 per ton.—No. 9 vein, above 7th level. Average width of vein 5 feet, assaying $23·25 in gold and $3·85 in silver, equals $27·10 per ton.—No. 9 vein, above 8th level. Average width of vein 7 feet, assaying $27·50 in gold and $4·50 in silver, equals $32 per ton. — No. 9 vein, above 9th level. Average width of vein 2 feet 6 inches, assaying $37·50 in gold and $18·75 in silver, equals $56·25 per ton.— Prospecting department. Intermediate crosscut above 4th level. Full length of this crosscut is now 64 feet 6 inches, which reaches the hanging wall of the vein entered by it. In crossing the vein its average width showed 7 feet, assaying $26·20 in gold and $1·30 in silver, equals $27·50 per ton.—Winze below above vein. To ascertain the pitch and general direction of the above vein, a winze has been commenced on it, which is now 12 feet deep. The average width of the vein is 4 feet, assaying $22 in gold and $5 in silver, equals $27 per ton.—77 feet vein above 4th level west from crosscut. Already reported, 25 feet; advanced for the month, 11 feet; total length 36 feet. The average width of the vein is 4 feet, assaying $21·25 in gold and $1·40 in silver, equals $22·65 per ton. The present face shows a lower grade than this average.—77 feet vein 4th level east from crosscut. Reported length 48 feet; advanced for the month 38 feet, total 86 feet. The vein has been very wide and its walls very sinuous; it has also formed two branches, both of which have been carried. Average width 4 to 8 feet, assaying $18 in gold and $1·50 in silver, equals $19·50 per ton. Present length of the ore body represented by the last two-mentioned levels is 133 feet.—77 feet vein above the 9th level (intermediate). Reported length 110 feet 6 inches, advanced for the month 23 feet, total length 133 feet 6 inches. Average width of vein 6 feet, assaying in gold $23·50 and in silver $5·50, equals $29 per ton.—77 feet vein 9th level east, hanging wall section. Reported length 293 feet 6 inches, advanced for the month 25 feet 6 inches, total length 329 feet. Average width of vein 2 feet 6 inches, assaying in gold $15 and in silver $10, equals $25 per ton. The vein has narrowed down since my monthly report for November.—77 feet vein 9th level east, footwall section. During the month some driving was performed on this branch of ore, which had again diverged from the main vein. Amount driven 10 feet The ore was of good grade, averaging $40 per ton, chiefly in gold. Its present face is narrow and low grade.—77 feet vein, winze below 9th level east. A winze has been sunk below the bottom of the 9th level for a distance of 41 feet 6 inches. The average width of the vein for the distance sunk is 4 feet, assaying $21 in gold and $5 in silver, equals $26 per ton.—77 feet vein, 10th level east. Reported length, 308 feet; advanced for the month, 55 feet; total length, 363 feet. The grade of the ore is still low. We expect to reach the point during the present month at which the winze, coming down from the 9th level east, will strike this level.—No. 9 vein, 8th level, west. Reported length, 508 feet; advanced for the month, 523 feet. On account of its poverty it was abandoned, and, from a point 208 feet from his face, a crosscut was commenced northward for the purpose of intersecting the No. 8, No. 7, No. 6, and 77 feet veins at points 180 feet westward from their last exposures. Work performed on this crosscut during the past month was 34 feet. Anchor vein advanced for the month 6 feet 9 inches. The ore did not improve to any appreciable extent; and, as the 4th level, west, on the 77 feet vein, develops this whole section, it was considered advisable to suspend the work on the anchor vein.—Summercamp group. The operations have been confined to the advancement of the main crosscut and the development of No. 5 vein. The length of the crosscut up to date is 185 feet. The length of the drift, on the No. 5 vein is 34 feet.—Miscellaneous work. The crosscut from No. 5 station, incline shaft, has been extended 26 feet; total length, 124 feet. We find this crosscut of great service as a thoroughfare, instead of the old No. 5 level east, which is driven on the dyke, and is expensive to keep in order.

COLOMBIAN HYDRAULIC.—T. P. Sharman, December 1: Run No. 198. During this run of 45 days we have been washing 848 hours in the central part of Clarke's Banks, and 96 hours in the new opening in the lower or extreme eastern end of the same banks. We cleaned up the old sluices only, and the total result is $6445·40, at a cost of about $4266·50. There is a large falling off all round; no doubt the gravel washed by the monitor was extremely poor; it came from the top of a ridge of bedrock which trends at right angles to the channel of the mine north towards the Aguas Claras. This bedrock is a great deal higher than was anticipated, and enables us to wash a long way towards the Aguas Claras; in fact, much farther than I believed to be possible. Though the gravel is poor it managed to pay a profit on all the costs, not only of working it, but of starting the new opening and washing there for nearly 100 hours.—New opening, in future to be known as La Mesa Mine. Water was turned through the pipes here for the first time on the 3rd inst., and for the first few days the pressure was gradually raised so as to find any weak places in the pipe without having an actual burst. The fact that 2000 feet of 16 inch 16 gauge pipe, some of it rather old, has been laid over rough ground and stands a pressure of from 70 to 80 lbs. per square inch, without finding a single weak place, reflects great credit on Mr. Bevan and the native patron who laid it. There are now two openings entirely distinct, so that in future water will always be on, excepting for a break on the ditch or large pipe, or an accident in both mines at the same time.

EAGLEHAWK CONSOLIDATED.—The following fortnightly report has been received from the mine, dated Maldon: During the fortnight the contractors have driven the crosscut 2 feet, and cut the west wall of the reef, making the crosscut 127 feet from the west side of the shaft to the west wall of the reef. We then drove south on the wall, with about 2 feet of jumble of quartz, to about 30 feet that cut out, and the stone is making in the face of the drive, about 1 foot wide, and widening as we go south. The channel of the reef is about 23 feet wide; we have driven south on the side of reef 3 feet for the fortnight. The tributers, Smith and party, have a small kiln of quartz of 2 tons at the battery, which will be crushed next week some time. They are still working on the same block of stone, about 160 feet down from the surface. They are getting a little gold, but not at present. Harris and party are sinking a winze about 150 feet down from the surface in a block of stone. They are down with their winze 17 feet. Tributers Smith and party have just finished a kiln of quartz, which has realised nearly 3 ounces to the ton, 12 tons; but the other tributers are not getting anything at present.—(Signed) T. Hodge, mining manager.

ELKHORN.—Mine manager's report of work for the month of December.—Mine. Ore breaking department.—550 feet level south.—South end stope. The vein is 3 feet 6 inches wide, and the value 43 ounces. The ore is making regularly.—750 feet level south, under 2nd stops. The vein is 3 feet wide, and the value 40 ounces. The ore is dry, with a few spots of lead.—North of the shaft, crosscut raise stope. The vein is 30 inches wide, and assays 30 ounces.—Inside stope. The vein in the north end has opened to 2 feet in width. The ore is dry and assays 44 ounces. —850 feet level north. The vein is 5 feet wide, and the value 35 ounces. Work has been started in the old stope northerly to connect with the south end of the new—South of the shaft. We have resumed work in the back of the Diamond drill stope upon an 8 inch streak of 65 ounces ore.—950 feet level, north. The vein is 5 feet wide, and the value 44 ounces.—1050 feet level north. The vein is 3 feet wide, and the value 48 ounces.—1150 feet level south. The ore has all been taken out from the south end of ground, and the place abandoned.—1250 feet level south. At the north end of the stope, above the pillars, porphyry ore occurs against the hanging-wall. Its width is 7 feet, and value 36 ounces, with some bunches of high-grade lead ore in it. The length is 10 feet as developed at present.—1350 feet level south (south end). The vein is 18 feet wide, and the average value 30 ounces. Connection has been made from the back to the bottom of the 1250 feet level, to facilitate the handling of timbers. — Back stope, centre. The vein is 5 feet wide, and the value 38 ounces. The ore is nearly all of the dry class, the lead being replaced by the milling variety.—North of the shaft. We are raising from the south branch of the raise, following a small streak of ore, to connect with the underhand stope on the 1250 feet north level.—1450 feet level, south (back stope). The vein is 6 feet wide, and the value 60 ounces. This includes bunches and bands of smelting ore which occur with the quartz.—Centre stope, foot of main raise. The ore in the back has become silicious, with bunches of high grade smelting ore. Its width is 4 feet, and value, exclusive of the lead, is 38 ounces. —North of the shaft. The vein is 3 feet wide, and the value 30 ounces, with some bunches of smelting ore.—1550 feet level south, back stope. The vein is 18 inches wide, and the value 70 ounces and 10 per cent. lead.—1650 feet level south, outside stope. The vein is 20 inches wide, and the value 35 ounces.—Inside stope. The vein is 5 feet wide, and consists of seams of high grade ore in brecciated quartz and sandrock. Its value is 60 ounces.—Prospecting department. Previously reported 150 feet; advanced in December 166 feet; total length 1st January, 316 feet. The character of the ground has not changed since last month; it is hard and short, which makes the drivage comparatively slow. A small bunch of high grade ore was passed through early in the month. Its only importance is its assay value—141 ounces—which may be an indication of the grade of what is going ahead of us. No regular flow of water has been cut yet, the bottom pumps being idle most of the time.

HAURAKI.—The directors have received the following telegram from the manager, viz.:—"The crosscut has reached the lode, and shows a body of ore 1 foot 7 inches wide, with specks of free visible gold. We are now opening up the same. We have crushed 5 cwts. of specimen stone, yielding 330 ounces of gold. Our profit, including tributers' percentage, is £1050."

HARQUAHALA.—Mine manager's monthly report for December:—Mining department, Bonanza group, ore breaking Discovery vein, stope No. 2, above 6th level. This stope, has been carried forward and upward along the junction of the iron and contact veins, and has produced about 700 tons of ore during the month, assaying from $12 to $20. This stope will be opened to the west, where the ore-body is large and irregular, and eastward along the iron vein, where it is about 3 feet thick. —Contact vein, west, porphyry stope. This ore-body has diminished in value to $5 in a broken part of the vein. 200 tons have been extracted here. The vein is being followed westward at this point.—Iron vein, above 1st level, south end. 600 tons have been extracted from here, assaying $7 to $8. A lower bed has been opened up, making the stope more extensive, and putting considerable ore in sight of fair grade.—Iron vein, above 5th level, south end. Above 300 tons have been taken from this part of the mine, averaging $6. The latest developments show a marked improvement, the vein being from 2½ feet to 4 feet in width in the south end, and yielding from $10 to $15. The indications are good for a body of ore, between the 1st and 5th levels at this point, of good grade.—Iron vein, below 6th level. 100 tons have been mined along the level near the incline to the 7th level. The vein has been 2½ feet in width and assays $7.—Prospecting department. Iron vein south 1st level. A winze has been started near the south end of this level to be sunk to the 4th level for a ventilating shaft. It has 12 inches of ore of $10 to $12 value.—Iron vein, 4th level, south. This has been advanced 80 feet during the month, and has entered the ore-body at the south end. The vein here is about 2 feet thick, and assays about $8.—Iron vein, east. A crosscut from the 5th level has been advanced 55 feet, and a drift run 33 feet to the east, and another 24 feet southerly. Traces of gold have been found, but nothing of value.—Contact vein east, No. 1 crosscut, 5th level. This crosscut near the old shaft has been extended 40 feet, making a total length of 60 feet. It runs along or near the porphyry contact and shows narrow streaks of good ore, but not sufficient to pay.—Contact vein, west. From the porphyry stope drifts are being run west along the contact. The upper one, opposite the crosscut from the 5th level, has been run 25 feet. Pay ore has been taken from it at some points, and its appearance is very encouraging. The lower drift over No. 4 crosscut from the 6th level has been run 22 feet, but with no pay ore as yet.—Golden Eagle group. The south drift has been advanced 26 feet, making a total of 293 feet. No pay ore has been found, but the heading of late has shown a little gold which may improve in depth. The north drift has been advanced 11 feet, making a total of 61 feet. The vein is about 15 inches in width, and has shown a small quantity of pay ore. No. 2 winze has been sunk 54 feet, making a total depth of 77 feet. This is in good ore most of the way, but near the bottom is rather spotted and low grade. Its appearance is very hopeful, and it will be sunk further. No. 1 winze will be resumed at once, a small hoist having been put in place to work this. 156 tons of ore have been hauled from here during the month, coming from No. 2 winze, and assaying $12 to $15 per ton. No stoping has been done as yet in No. 2 winze, and there is considerable ore on either side.

KINSELLA.—Extract from manager's letter, December 13:—The mine. At Kinsella No. 2 two men are driving south at water level towards the Nil Desperandum lease. The lode is 3½ to 4 feet wide, some of it being very white and hungry, but we occasionally see good gold in it. On the Nil Desperandum claim two men are sinking the air shaft, which is about 35 feet north of the water shaft, so as to connect with the north drive, which is just under the shaft. The lode is over 6 feet wide, much darker than the Kinsella No. 2 quartz, which is now being broken, and some of the stone carries very good gold. At Kinsella itself three men and Mr. Jackson are stoping between Nos. 1 and 2 shafts. The lode is about 4 feet wide, and both yesterday and to-day I saw some very rich quartz that had been broken from the stope.—Office note. Winding engine and boilers have been purchased in Sydney and are now in transit to the mine, and 10 stamps, engine, and two boilers have been ordered in England, and should be shipped in one to two months.

KING SOLOMON'S MINES (W.A.).—Under date of December 12, the mine manager reports:—Main shaft now down 130 feet. Water increasing as sinking is continued, and we have now thousands of tons of payable stuff which could be raised for treatment. All we require is a 10-stamp battery and a good supply of water. It is necessary now to continually bail in order to keep the water below the timber in the shaft.

LA YESCA.—Captain Michell reports on January 2: San Miguel Mine. At this moment the forebreast is principally composed of a decomposed limestone, very highly charged with iron pyrites. In the upper part of the end is a channel of quartz from 6 to 8 inches in width, deeply coloured with oxide of iron, and here and there kidneys of galena. Near the sole of the level is a small running stream. This is a very important feature, and a sufficient indication that the tunnel is near the intersection of the gold-bearing vein, besides which, the ground is becoming more of a mineralised nature than anything seen since operations commenced. Therefore the prospects are of a most encouraging nature. Distance driven during the past fortnight 20 feet 1 inch, total measurement 713 feet.—Major shaft I am daily expecting to effect a communication. As soon as the men get through they will not be long in reaching the reported rich ore ground—Zapopan. The repairs of the Despacho workings are being pushed forward with all possible dispatch, and I think that in another week or ten days a part of the workings will be sufficiently repaired to put men to take out ore. A sample, broken from the higher backs of the large deposit, gave 78 ounces of silver to the ton. When these workings are put in thorough repair my successor will be in a position to employ several pairs of men. Therefore, you will soon be having some returns from this section of the property.—Machinery. The mechanic is now fixing the feed pump, and making all necessary piping arrangements. The trench to convey the water to the mill is dug for the whole distance (900 feet nearly). The earthenware pipes are laid for upwards of 250 feet. Altogether the work is in a very forward state.

ORITA.—H. J. Prender, December 17: Run No. 83. All is running quite steadily, and we shall clean up about the 22nd instant. This run will be shorter than the last, but I want to have all in running order so that we shall not feel the want of men at the faces, as most of them will go off for a few days at Christmas. Our next run will be at the branch, and I look for more from there than from the present run.

SEGOVIA.—The mine superintendent writes by this mail that he hopes to be able to report in his next letter that the water has been turned on to the mine; he states that, at any rate, it should be on by the end of January. Mr. Carleton adds:—From the quebrada surumbo, one mile below the take of the Nona to the mine, the ditch is in working order. There remains about three weeks in trenches and flumes in order to turn in the Nona.

WENTWORTH EXTENSION.—Report dated December 15: East crosscut 150 feet level advanced during the week 8 feet; total length, 274 feet. No change. Winze at end of north-west drive from alluvial shaft sunk 25 feet. Alluvial at this point very much disturbed, and has taken a sudden dip to the west.

YERRAKONDA.—Fortnightly report of Captain M. Scantlebury, mine agent, December 26: Beresford's shaft. This shaft has been sunk 4 feet, now 300 feet 6 inches from surface. The water has been troublesome, otherwise more ground would have been sunk. On the 1st of February we shall commence the drives at the 300 feet level. The lode is 6 feet wide, composed of quartz and iron pyrites, assaying 3 dwts. 6 grains of gold to the ton. 200 feet level north has been advanced 15 feet 9 inches, now 263 feet 9 inches from shaft. The lode is 2 feet wide, but intermixed with country rock, assaying 1 dwt. 16 grains of gold to the ton. End head of rise 200 feet level south has been extended by hand labour 9 feet 6 inches, now 22 feet 6 inches from rise. The lode is 3 feet wide, assaying 5 dwts. 5 grains of gold to the ton. New engine shaft has been sunk 2 feet, now 115 feet from surface. The shaft has been cased and divided, ladder-way put down, poppet heads erected, and winding engine started. We shall put rock drills in this shaft as soon as possible.

ALAMILLOS.—Mine report dated January 16: In the 85 fathoms level driving west of Taylor's engine shaft, the lode is of no value. The lode in the 160 west of the same shaft is strong, and produces stones of lead. In the 100 east of Judd's engine shaft the lode is unproductive, and the granite is hard for driving through.

BAYLEY'S REWARD, No. 1 SOUTH.—Mining report, dated December 1: Main shaft. Main shaft (Gorrie's) since last report has been sunk a further depth of 5 feet, full depth now being 138 feet from the surface. Lode is still underlaying east. To all appearances have now touched the western wall, or it may be a bar of intrusive rock in the lode which will be ascertained as we get deeper. At present there is quartz 3 feet 6 inches wide in the bottom of the shaft in which we have seen gold from time to time.—No. 2 shaft. Sunk 5 feet and connected with the south drive from the main shaft, this we have also driven 5 feet for the purpose of fixing the necessary timber, small chamber sets, and otherwise completing and making everything secure, which I hope to finish or very near by the end of the coming week.—No. 2 shaft, Bayley's line. With this work the contractors have made very fair progress, having sunk 12 feet, total 103. Ground still of a favourable character.—Machinery. The covering of the building is now complete, portion of each end enclosed, also carted in the necessary material to fill up for the battery and feeding floors and construct road. Will now shortly commence fixing the tables and making the necessary ripples and tables for the blankets.—Poppet heads. The frame sets to stand from the surface to the landing brace of the poppet heads to carry the floor is almost complete and will be erected during the ensuing week.—W. H. Matthews.

BAYLEY'S REWARD CLAIM.—Mining report dated Dec. 1: Sylvester shaft for the week has been sunk 5 feet, full depth now being 312 feet from the surface; have also timbered about 10 feet; ground similar to last report.—North drive, 280. The north drive has been advanced 8 feet, 59 feet from shaft; the last 35 feet has been driven slightly east of north-east on the fault, or slide. At this distance the ground made much harder, and the wall disappearing, we have deemed it advisable to suspend operations here for the time being, and as there is a defined wall of lode bearing slightly north of north-west, we think it best to try this for some little time, in order to see if the lode will again make in this direction.—160 feet level. Winze, or the continuation of Gordon shaft, has been sunk 7 feet. At present preparing for timber, after which sinking will be resumed, and pushed through to connect with the 220 as rapidly as possible.—Gordon shaft. Stopes in the bottom of the No. 1 intermediate show no change since last report.—Begelhole shaft. North and south stopes yielding stone of very rich grade, each face at times exposing very good gold.—Everard shaft. North drive from Everard shaft driven 7 feet, total 174 feet from shaft. Still carrying portion of the lode, which is apparently very wide.—Stopes. Stopes south of Everard shaft still continue to yield stone of fair grade.—Air shaft. Have discontinued driving south from the air shaft and commenced stoping, and which has during the week shown some very fair gold.—Cockshott shaft. The crosscut from the north drive since started has been driven 18 feet. About 7 feet more to drive to connect with the south drive from the air shaft. McCulloch shaft has been sunk 5 feet, full depth now being 32 feet. Lode is strong and of a very promising character.—Lode croppings. The work in connection with the lode croppings or alluvial has during the week yielded fairly well, the fines being passed through the machine, and the coarse stone through the battery.—Crushing. As usual, the boiler has been cleaned, and have crushed 95 tons. This week the supply of water has been very limited. There was no reply to our calling for tenders for a further supply. We have also tried in every place within reasonable distance where we thought there was the least chance of, but cannot at present obtain sufficient.—Machinery. The smaller boiler for the winding engine and the steam winch, together with the pipes and the other things in connection with it, has this week been received.—Yield. Yield for the week is 700 ounces of gold.—Gold dispatched. Gold dispatched by escort, 1400 ounces melted gold as advised by wire yesterday.—W. H. Matthews.

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for the week ending December 12: Blackwood (No. 1 shaft), 150 feet level. North drive off east crosscut driven 19 feet, total length 59 feet. East side of face showing mullock, with sulphides on west side. South drive off east crosscut extending 16 feet, total length 51 feet. Face carrying small seams of carbonate ore, about 1 foot wide. Have started an uprise in east crosscut for connection to south drive on 10th floor, and have driven same 9 feet.—Howell (No. 2) shaft, 300 feet level. North-east drive lengthened 8 feet, total length 96 feet. Face remains hard, but breaks a little better.—Marsh (No. 6) shaft, 2nd level. No. 3 east crosscut extended 12 feet, total length 132 feet. Face in country rock. Have been fossicking around uprise in end of south drive off No. 3 east crosscut, following carbonate ore. We broke 8 tons, averaging 24 per cent. lead and 25 ounces silver per ton.—Stopes. Are stoping southwards from uprise in north drive, but ore is pinching. We broke 20 tons, averaging 17 per cent. lead and 31 ounces silver per ton, and 3 tons 17 per cent. lead, and 19 ounces silver per ton. North stope over back of main south drive in fair grade ore; will make connection to No. 2 west crosscut in few days. We broke 1 ton, averaging 38 per cent. and 20 ounces, and 7 tons 17 per cent. and 19 ounces silver per ton.—Stope down winze. We broke 76 tons, averaging 27 per cent. and 61 ounces, 19 tons 25 per cent. and 36 ounces, and 1 ton 17 per cent. lead and 19 ounces silver per ton.—Retallick's workings. East crosscut off north drive down winze driven 4 feet, total length 20 feet. Face still in lode matter, but of no value. On 115 feet level, along western side of No. 2 north-east drive, we broke 7 tons, averaging 35 per cent. and 25 ounces, and 15 tons 17 per cent. and 19 ounces silver per ton. Have connected this with south stope from winze. The assays for the week vary from 6 to 44 per cent. lead, and from 4·9 to 185·10 ounces silver per ton.

CHIAPAS.—Mine report for fortnight ending December 15: Providencia Aver driven 8 feet, total 204 feet. Since my last report narrowed and broke up, but is again continuing its old course, is improving and holding its own. Assay 6 dwts. 12 grains gold, 4 ounces 11 dwts. 12 grains silver, 3·23 per cent. copper.—Providencia South Hill crosscut No. 2 driven 5 feet, total 170 feet. No change. Taylor main extension driven 13 feet, total 559 feet 6 inches. No change. Copper Creek crosscut No. 2 driven 2 feet 6 inches, total 100 feet. Holed through into Santa Fé stope east. This will now enable us to continue prospecting work in Arciga drift, which has already been commenced. Santa Fé Hill drift No. 3 driven 3 feet, total 32 feet 6 inches. Shows specks of ore. Jardin crosscut driven 1 foot 6 inches, total 20 feet 6 inches. Bunch of ore immediately below drift, but apparently does not reach down; ceased driving. Assays only 4 dwts. gold, 9 ounces 9 dwts. silver, and 4·94 per cent. copper.—Extraction. Old Providencia 249 tons. Continues very good ore, though a little poorer this fortnight. Assays 18 dwts. gold, 10 ounces 6 dwts. silver, 6·51 per cent. copper. Santa Fé Hill 225 tons. Very high grade ore. Assays 2 ounces gold, 8 ounces 6 dwts. silver, and 5·05 per cent. copper, probably a little too high, as pan tests show the ore is falling off somewhat. Providencia Aver 8 tons hand sorted. Fairly good. Taylor No. 3 7 tons. Good average ore. Santa Fé stope 269 tons. Continues to look very good. Assays 13 dwts. gold, 7 ounces 12 grains silver, and 4·42 per cent. of copper. Season continues dry, and no work below water level possible. An assay made on a general sample throughout Arciga drift and crosscut gives by panning concentration (and not panned too finely) 13·10 per cent. concentrates. Value 40 per cent. lead, 10·33 per cent. copper, 4 dwts. 21 grains gold and 80 ounces 2 dwts. 15 grains silver. In the face of crosscut we have ore showing which gives as it stands 1 ounce 1 dwt. 5 grains gold, 35 ounces 12 dwts. 3 grains silver, and 22·13 per cent. of copper, with 26·66 per cent. of lead. We shall continue to crosscut until we reach wall, and then drive westwards a little to get away from proximity to dyke, and then sink. From a point a little beyond Taylor No. 3 winze we have commenced to drive north to explore the ground in this direction.

COROMANDEL.—Superintendent's report for fortnight ending December 29: Coromandel shaft 420 feet level north. This end has been advanced 24 feet 9 inches, and is now 520 feet 9 inches from shaft. 15 feet back from present end the lode carried 8 feet of quartz, but has since become pinched to less than 1 foot in width. In the rise from back of this level the lode is 1 foot 3 inches wide and worth ½ ounce of gold per ton. Winze under 320 north sunk 10 feet 6 inches, total 52 feet. Lode is 1 foot wide and assays 8 dwts. per ton. 210 feet crosscut west drivage for fortnight 11 feet 9 inches, total 61 feet; ground has become much harder, but otherwise there is no change.—Prospect shaft, 500 feet level north. The winze in bottom of this level has been sunk 12 feet 9 inches, its total depth being 29 feet 9 inches. The quartz has varied from a few inches to over 2 feet in width; but is much broken up and assays only 6 dwts. per ton.—500 feet crosscut west. 15 feet has been added to this drivage, and the end is now 254 feet from shaft. No quartz has yet been discovered, and no further change in the ground is observable.—440 feet level north of crosscut east. This end has been driven 21 feet 6 inches, total 70 feet 6 inches from crosscut. Lode 1 foot wide, worth on an average 10 dwts. of gold per ton.—Rise back 440 feet level, south of crosscut east. This has been advanced a further 10 feet 6 inches. The lode maintains its size of from 2 to 2½ feet, and the value has increased to 1 ounce 15 dwts. per ton.

CRAVEN'S CALEDONIA.—The following fortnightly report has been received from the mine, dated Charters Towers, December 6: In the three stopes above No. 9 level the reef will average about 5 inches. In the underhand stope the reef is about 10 inches. Owing to the fault taking a sharp turn while we were sinking the winze from this level, I have had to put in a drive on the western side at the bottom; the drive has been extended 10 feet to meet the rise which we are putting up on the 606 feet level from the Victoria and Queen shaft. The No. 8 level (on the fault) has been extended a further 21 feet, making it a total of 72 feet from the starting point. There are still bunches of quartz appearing in the face, but nothing regular yet. The haulage of quartz for the fortnight is 30 tons, making a total of 97 tons in the paddock. At the Victoria and Queen shaft, in the 606 feet level, the rise has been extended a further 6 feet, making a total of 13 feet from the level. The eastern level on the Victoria and Queen reef has been extended a further 7 feet, making a total of 69 feet from the boundary peg, and there is about 8 inches of reef in the present face. The reef over this level in the stopes will average about 10 inches. The haulage of quartz from this shaft for the fortnight is 40 tons, making a total of 116 tons in the paddock.

CHAMPION REEF.—Fortnightly report of Captain James Rowe, superintendent, dated January 2:—Garland's shaft. This has been sunk 6 feet, total depth 842 feet. Lode 2 feet wide, assaying 2 ounces 2 dwts. of gold per ton. The shaft being deep enough for the 840 feet level we have started to drive north and south on the lode. The 840 north has been driven 9 feet. Lode 1 foot 6 inches wide, assaying 2 ounces of gold per ton. 840 south driven 7 feet. Lode 2 feet 3 inches wide, assaying 2 ounces 3 dwts. 10 grains of gold per ton. The 740 level north of shaft has been driven 29 feet, total length 228 feet 6 inches. Lode 3 feet wide, assaying 1 ounce 16 dwts. of gold per ton. 740 south driven 30 feet 6 inches, total length 193 feet. Lode 1 foot 9 inches wide, assaying 1 ounce 19 dwts. of gold per ton. The 630 feet level north of west crosscut driven 28 feet 6 inches, total length 420 feet 9 inches. Lode 1 foot 6 inches wide, assaying 1 ounce 14 dwts. 12 grains of gold per ton. The 530 feet level, north of west crosscut, driven 24 feet 6 inches, total length 885 feet 3 inches. Lode 3 feet wide, assaying 2 ounces 7 dwts. 3 grains of gold per ton. No. 7 rise in back of level risen 12 feet 3 inches, total height 32 feet 9 inches. Lode 3½ feet wide, assaying 1 ounce 18 dwts. of gold per ton. No. 3 winze below level sunk 9 feet, total depth 21 feet. Lode 3½ feet wide, assaying 1 ounce 2 dwts. of gold per ton. No. 7 rise in back of 440 north of west crosscut risen 20 feet 6 inches, and communicated with 340 south of Ribblesdale's shaft. No. 6 rise in back of level risen 13 feet, total height 42 feet 6 inches. Lode 3 feet wide, assaying 1 ounce 13 dwts. 10 grains of gold per ton. No. 6 new winze below level (105 feet north of No. 5) sunk 3 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 12 dwts. of gold per ton. No. 5 winze below level sunk 7 feet 3 inches, total depth 14 feet 3 inches. Lode 3 feet wide, assaying 1 ounce 17 dwts. of gold per ton.—Ribblesdale's shaft. The 540 feet level north of shaft has been driven 23 feet, total length 300 feet. Lode small and without value. We are nearing the south part of the fold in this end; expect soon to meet with a valuable lode. 540 south of shaft driven 21 feet 6 inches, total length 118 feet 9 inches. Lode small, yielding a trace of gold. We are now driving crosscut east of this level to meet with east part of lode met with in crosscut east of 440 south. 440 feet level south of crosscut east of 440 south has been driven 21 feet, total length 130 feet 6 inches. Lode 1½ foot wide, assaying 1 ounce 8 dwts. of gold per ton. Rise in back of level risen 20 feet 9 inches, total height 58 feet 9 inches. Lode 3½ feet wide, assaying 17 dwts. 17 grains of gold per ton. Incline winze below level sunk 19 feet 6 inches, total depth 91 feet 6 inches. Lode 4½ feet wide, assaying 2 ounces 3 dwts. 9 grains of gold per ton. The 340 feet level south of crosscut, east of 340 south of shaft, has been driven 16 feet 3 inches, total length 118 feet 3 inches. This is communicated with No. 4 winze sunk below 340 feet level, north of Garland's shaft. No. 2 rise in back of level risen 11 feet, total height 123 feet 9 inches. This is communicated with 240 feet level south of shaft. 340 north of crosscut driven 3 feet 9 inches, total length 113 feet 6 inches. Lode 1 foot wide, assaying 1 ounce 3 dwts. 14 grains of gold per ton. Incline winze below level sunk 23 feet, total depth 49 feet 3 inches. Lode 3 feet wide, assaying 2 ounces 8 dwts. of gold per ton. No. 2 winze below level sunk 10 feet 9 inches, total depth 15 feet 6 inches. Lode 1 foot wide, assaying 1 ounce 2 dwts. of gold per ton.—Carmichael's shaft. We have not as yet quite completed the bringing down of this shaft to the lode at the 440 feet level. The 315 feet level south of crosscut, west of shaft, driving on the quartz intersected some time ago, has been driven 24 feet 9 inches, total length 33 feet 3 inches. The branch is improving; it is now 6 inches wide, assaying 15 dwts. of gold per ton.—Rowe's shaft. This has been sunk 5 feet, total depth below the 415 feet level 9 feet 6 inches. Lode 2½ feet wide, assaying 2 ounces 1 dwt. 22 grains of gold per ton. The 415 feet level north of shaft has been driven 18 feet 9 inches, total length 88 feet 9 inches. Lode 1 foot wide, assaying 2 ounces 4 dwts. of gold per ton. 415 feet level south of winze, sunk below 315 south of shaft, driven 21 feet 9 inches, total length 28 feet 9 inches. This is back to east and west dyke.

GOLD FIELDS OF MYSORE.—Mine report for fortnight ending December 31: Oriental lode, south shaft. Having completed the cutting of the top plat at the 470 feet level, we have been able to make better progress in driving the ends. The 470 feet level north of shaft has been driven 5 feet 6 inches, total length 155 feet 6 inches. Lode 9 inches wide, assaying 15 dwts. 12 grains of gold per ton. 470 feet level south driven 5 feet 10 inches, total length 173 feet 8 inches. Lode 1½ foot wide, assaying 15 dwts. 12 grains of gold per ton.—The 380 feet level north has been driven 5 feet, total length 252 feet 7 inches. Lode 1 foot wide, assaying 1 ounce 2 dwts. 10 grains of gold per ton. 380 feet level south driven 3 feet 7 inches, total length 260 feet 7 inches. Lode 3 feet wide, assaying 15 dwts. 3 grains of gold per ton. We shall now start cutting the top and bottom plats at the 380 feet level, consequently very little will be done in driving the 470 north and south of shaft before their completion.—Machinery. The erection of this is being pushed on as rapidly as possible, and fair progress is being made.

GOLD FIELDS OF MYSORE.—Report on prospecting operations dated January 2: West Balaghat block, No. 1 shaft. The 117 feet level north of shaft has been driven 6 feet 3 inches, total length 131 feet 9 inches. Lode 1 foot 3 inches wide, assaying 2 dwts. 8 grains of gold per ton. 117 feet level south driven 3 feet 6 inches, total length 118 feet 3 inches. Lode 1 foot 9 inches wide, assaying 17 dwts. 2 grains of gold per ton.—No. 2 shaft. The 100 feet north of shaft has been driven 3 feet, total length 119 feet 5 inches. Lode 1 foot 3 inches wide, assaying 5 dwts. gold per ton. 100 feet level south driven 2 feet 9 inches, total length 131 feet 3 inches. Lode 1 foot wide, assaying 12 dwts. 4 grains of gold per ton.—No. 3 shaft. This has been sunk 4 feet 6 inches, total depth 134 feet 6 inches. Lode 2 feet wide, assaying 11 dwts. of gold per ton. The 117 feet level north of shaft has been driven 5 feet, total length 57 feet 6 inches. Lode 1 foot 3 inches wide, assaying 10 dwts. 4 grains of gold per ton. 117 feet level south driven 5 feet, total length 124 feet 6 inches. Lode 1 foot 3 inches wide, assaying 7 dwts. of gold per ton.—No. 4 shaft. The 148 feet level north of shaft has been driven 4 feet 9 inches, total length 41 feet 9 inches. Lode 6 inches wide, assaying 8 dwts. 3 grains of gold per ton. 148 feet level south driven 4 feet 6 inches, total length 34 feet. Lode 1 foot 9 inches wide, assaying 8 dwts. 10 grains of gold per ton.—Road block, No. 3 shaft north No. 2. South level from bottom of this shaft has been driven 11 feet 3 inches, total length 141 feet 9 inches. Lode 1½ foot wide, assaying 13 dwts. 6 grains of gold per ton.—North shaft. The north level from bottom of this shaft has been driven 5 feet 6 inches, total length 51 feet 6 inches. Lode 1 foot 9 inches wide, assaying 18 dwts. 9 grains of gold per ton. South level driven 8 feet, total length 66 feet 6 inches. Lode 9 inches wide, assaying 4 dwts. of gold per ton.—Affapuli block. The shaft in trench has been sunk 7 feet 3 inches, total depth 78 feet 3 inches. Lode 1 foot 6 inches wide, assaying 5 dwts. 8 grains of gold per ton.

HARMONY GOLD AND LAND.—Extract from a letter of the 27th ult. from Mr. Procter, Leydsdorp:—Yesterday I went with Mr. Stephens, the manager of the Sutherland Reef, to view the outcrop of Sutherland Reef on to your farm to the west. He informed me that he had traced it (the reef) for some miles through your properties. Now, about four miles from Sutherland camp to the west is a kopje, named Pebbine, a splendid site for a camp, and close to the Ngabitsi river, that is, within three-quarters of a mile. There is a very good man here who has had a contract with the Sutherland Reef Company to build their reservoir. (This work will be completed in a few days.) I shall enter into a contract with him to sink a 100 feet shaft on the reef. I shall have a roof built over the shaft, so that work can go on during the summer. One fact is obvious; whatever is found to the east will in crossing westward pass through your farms. I shall not confine myself only to the extension of Sutherland Reef, but will proceed with other portions of the farms at different places. You can rest assured that the property of the Harmony Gold and Land Company will prove of enormous value.

KEMPINKOTE.—Fortnightly report of Captain D. H. Williams, mine agent, dated December 31: Garland's shaft has been sunk 13 feet 8 inches, total depth from surface 287 feet 6 inches. The ground in bottom of shaft is a shade harder than it has been. 245 crosscut east has been driven 25 feet 6 inches, total distance from shaft 73 feet 6 inches. 58 feet from shaft we met with a seam of quartz 2 feet wide, bearing east and dipping north. This continued. The lode in the end is 2 feet wide, assaying 4 dwts. of gold per ton.—183 south drive, crosscut east. 6 feet from end of main drive has been driven 21 feet, total distance 21 feet. 19 feet of this were driven through a soft schist. At this point we met with a hard black country rock. We continue the drivage. No. 1 winze has been sunk 7 feet 6 inches, total depth 32 feet. Lode in the bottom the full width of the sink, assaying 3 dwts. of gold per ton.—Henty's shaft. At the bottom of this shaft, 258 feet from surface, we have driven north of shaft 10 feet total distance from shaft 10 feet. The ground is composed of a very hard schist; we shall drive a few feet more in this direction, after which we shall be able to start a crosscut east. Our sink coolies are engaged in blasting down the hanging wall of the shaft and cutting top plat; we are making fair progress with the work. 173 north drive has been driven 6 feet, total distance from shaft 32 feet 6 inches. Lode matter in the end the full width of the drive, showing a trace of gold by assay.—Machinery. The water is now being conducted from Garland's shaft through the 183 level to the 173 pole in Henty's shaft, and the top bucket in Garland's has been done away with.—Sawing machine. One 30-inch circular sawing machine has been erected driven by steam power, which will be of use to us in future.—Health. The health of the camp is still very good.

LINARES LEAD.—Mine report dated January 16:—Pozo Ancho Mine. In the 200 fathom level driving east of No. 276 winze, on Warne's lode, the lode is more regular than it was, but it does not contain any ore. In the 200 west of the same winze, on Warne's lode, there is no improvement. The lode in the 178 west of Warne's cross cut is large and promising, easy for driving through, and yielding fine lumps of ore, and is valued at 1½ ton per fathom. In the 200 west of Peill's engine shaft the lode is small, consisting chiefly of carbonate of lime, and yielding a little ore. The lode in the 155 west of the same shaft has fallen off a little in value, and is now estimated at ½ ton per fathom.—Los Quinientos Mine. In the 185 fathom level driving east of Taylor's engine shaft the lode has improved a little during the past fortnight, worth ½ ton per fathom. The lode in the 165 east is split into several small branches, each containing a little ore, valued at ½ ton per fathom. In the 150 east the lode is large and strong, and yields stones of ore occasionally. The 130 east continues unproductive. Benito's winze sinking below the 165 fathom level is valued at 2 tons per fathom. This is going down in a powerful and productive lode.

MOUNT ZEEHAN (Tas.).—Manager reports for week ended December 11: Argent section, main engine shaft, No. 6 lode. 72 feet level south, No. 3 stope, lode 2 feet 6 inches wide, medium quality seconds.¶Mill being engaged crushing for Zeehan-Montana Company ore has been kept below.—No. 4 lode, 72 feet level south. No. 2 winze sunk 4 feet 6 inches, total 16 feet 6 inches. Lode improving; 2 feet wide north, with 9 inches south end, carrying good seconds.—Silver Queen section, Shaft sunk 8 feet, total 53 feet. Have cut a branch in the shaft 6 inches wide, carrying galena, pyrites, and quartz. I believe we shall meet with a good lode, as the little work done on the winze shows the lode going down strong and carrying good ore. Concentrator has been running on Zeehan-Montana Company's ore.—Tributes. Argent No. 7. This party is making poor progress in sinking shaft.—Argent No. 2. The lode cut at the 50 feet level was found broken, and the men have started driving south at 25 feet.—Balstrops. This party is driving south from winze in a good vein of carbonate of iron and galena.

MOUNT LYELL.—From the report for the week ending Dec. 6: Indicator winze, No. 3 tunnel. Winze still sinking in fair grade copper pyrites. The small seam of micaceous clay continues to give good assays for gold.—Rise over old ore winze, No. 4 tunnel. The country continues tight and requires shooting, otherwise there is no change.—South drive, 50 feet level engine shaft, No. 4 tunnel. The country is schist rock; the drive is now being widened to allow of the rise (to connect with the Indicator winze, No. 3 tunnel) being started, with the necessary timber put in.—North drive, 50 feet level engine shaft, No. 4 tunnel. The country is hard barytous rock.—North drive, 100 feet level engine shaft, No. 4 tunnel. We cut pyrites on the left-hand side of the drive; the remainder of the face is in very hard country.—No. 5 tunnel. The contractors completed their contract, making the total length of the tunnel 913 feet. The new contractors have started, and have driven 5 feet, total 918 feet. Country sandstone and conglomerate.—Ore. There are 8 tons of ore on the floor, but no sampling has been done this week in consequence of the erection of new crushing and sampling plant; this will be ready for use at the end of the week.

MYSORE WYNAAD CONSOLIDATED AND MYSORE WEST.—Tank Block: The mining manager (Mr. P. Bosworth-Smith) reports by mail for the month of December, as follows:—South shaft. This has been sunk from 454 feet 9 inches to 464 feet 9 inches, a distance of 10 feet for the month. The new skip road is complete from the 400 level up to surface, and we are now raising the brace 14 feet to sink the new level of tramway to mill. 354 level north has been driven to a distance of 284 feet 9 inches from the shaft, making a progress of 10 feet 6 inches. We have stopped driving in the end in order to stope away the back of the level close to the winze, as it was too low to allow the wagons to pass. There is a foot of solid quartz in the end worth 5 dwts. per ton. The end is very encouraging. 400 north is 197 feet 6 inches from the shaft, showing a progress of 26 feet 6 inches. There is a lode 2 feet wide in the end worth 1 ounce to the ton. In the bottom of the level the footwall is going away to the west a little, showing that the lode is widening below. 400 south has been carried to the boundary, where the lode was 2 feet wide, assaying 1½ ounce to the ton. We ran a crosscut on the boundary to find out if we had missed any branches, but none were found. We started a

rise 73 feet from shaft to work up from the pinched ground into the shoot cut when crosscutting from shaft. We have risen 9 feet 3 inches, and are still in the hard ground, when the lode is branched, but we expect to get into the solid quartz very soon. The surface work is going on well. The necessary piers for tramway have been raised 6 feet, and the stack for mill boiler is 62 feet high, and will be carried on to 70 feet. We are expecting mill boiler and new boilers for the south shaft pumping engine, which have been shipped.

NEW QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers: No. 2 level north. Stoping has been carried on under this level, and over the eastern side of the underlie shaft, the reef being very irregular, varying from a leader to 6 inches.—No. 3 north level. A level is being started from the crosscut on the northern side of the hanging wall, the formation being about 3 feet in width. The reef is bunchy, but, as we drive north from the slide, the ground and reef may become more settled. This level will be known as the No. 3a north level.—No. 3a south level. Stoping has been continued over this level; the ground is very hard, and the reef irregular, from 3 inches to 1 foot.—No. 4 south level. Stoping has been carried on on the foot wall, on a reef about 5 inches, which seems to be going under the No. 3 south level. The stope, so far is only about 30 feet in length; the stone is of good quality.—No. 5a south level. Stoping has been carried on over this level. The formation is about 8 feet in width. The reef in this stope has been broken up very much during the last few days. Several leaders are intermixed in the formation, with about 6 inches of stone on the footwall.—No. 4 formation, No. 1 north level. The winze from this level has been sunk a further distance of 22 feet, making a distance of 44 feet from level. The reef during the fortnight averaged 15 inches. No. 2 north level has been extended a further distance of 28 feet, making a total distance of 101 feet from underlie. There is about 1 foot of stone in the face. No. 2 south level has been extended a further distance of 5 feet, making 56 feet from underlie shaft. There is in the end of this level a reef about 1 foot of heavy mineralised stone. Quantity of quartz raised during the fortnight—No. 3a north and south levels, 210 trucks; No. 4 south level, 26 trucks; No. 5a south level, 126 trucks; No. 4 formation, 59 trucks; total, 421 trucks.

NAMAQUA.—Abstract of superintendent's report for November: Tweefontein Mine, 125 fathom level east. The lode is well defined, but of no value.—115 fathom level east. This level is carried 10 feet by 9 feet, with copper ground still standing on the south side. Worth 6 tons of ore per fathom.—115 fathom level west. This level has been showing some good quality ore in the bottom, and to prove this a winze (No. 31) has been started in the bottom of the level.—105 fathom level east. At this point, ground has been met with of precisely the same kind and value that the 115 is passing through. Worth 6 tons of ore per fathom.—105 fathom level west. The forebreast of this level shows a very promising appearance, and yields good stones of ore, although of no commercial value.—95 fathom level west. The lode continues to be about 4 to 5 feet wide and is well defined. Worth 5 tons of ore per fathom.—85 fathom level west. This driving is suspended pending the sinking of the winze.—85 fathom level west, No. 30 winze. This winze appears to have entered a poor patch of ground, and is now of no value.—New shaft, 25 fathom level west. The lode continues to look well. Worth 10 tons of ore per fathom.—25 fathom level south. The forebreast is not of quite so much value. Worth 9 tons of ore per fathom.—25 fathom level west (sink on the north-west). The sinking will not be continued. Worth 10 tons of ore per fathom.—No. 4 shaft. Very good progress has been made in sinking this shaft, which will be driven to meet the 25 fathom level west of No. 3.—Stopes. No. 1 (bottom of 95, and in back of 105 fathom level west). There is very little change in these stopes; they each continue to yield 9 tons of ore per fathom.—No. 3 (bottom of No. 95 fathom level, off No. 26 winze). This is a new stope; it appears to be likely to produce large quantities of ore. Worth 8 tons of ore per fathom.—No. 4 (back and side of 105 east). It is anticipated that a fairly good body of ore ground exists at this point. Worth 7 tons of ore per fathom.—Shipping. The *Glanrafon* arrived at Swansea on the 29th December, with about 720 tons of ore.—Output for December. 500 tons of ore of 30 per cent.

No. 7 NORTH-EAST QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, December 7: During the fortnight the crosscut in the No 7 western level has been extended 12 feet, making the total from level 24 feet. The country, which is still granite, has been more favorable this week for working, having a good side head from which water continues to make. Perry and party are still stoping over the intermediate level on a reef from 6 to 8 inches in thickness of fair quality. Total amount of stone raised during fortnight 14 tons. (Signed), H. Davis.

OOREGUM.—Superintendent's report for fortnight ending Jan. 1: Taylor's shaft. The excavation for plats at the 660 feet levels is completed, and skip roads carried down. The timbermen are now engaged fixing timber and sollars for plats; when completed, the levels north and south will be resumed. The shaft has been sunk 5 feet, total depth below 660 feet level 18 feet 3 inches. Lode 3 feet 6 inches wide, assay value 1 ounce 12 dwts. 16 grains. The 560 feet level south driven 22 feet, total 560 feet. Lode 1 foot 6 inches, value 1 ounce 2 dwts. 21 grains. No. 1 winze, 560 feet level south, sunk 9 feet, total 57 feet. Lode 2 feet 9 inches, value 2 ounces 4 dwts. 15 grains. No. 3 winze, 460 feet level south, sunk 10 feet, total 59 feet 6 inches. Lode 4 feet carried, value 10 dwts. 21 grains. No. 4 winze, 460 feet level south sunk 7 feet 6 inches, total 21 feet. Lode 3 feet, value 5 dwts. 10 grains. The level north from back of No. 4 rise 280 feet level south driven 8 feet 9 inches, total 39 feet 9 inches. Lode 6 inches, value 10 dwts. 21 grains. Wallroth's shaft sunk 5 feet 7 inches, total 962 feet. Lode 2 feet 6 inches wide, assay value 6 dwts. 12 grains. The 960 feet level south commenced, driven 12 feet 3 inches. Lode 2 feet, assay value 5 dwts. 10 grains. The 960 feet level north commenced, driven 11 feet 3 inches. Lode 3 feet, assay value 7 dwts. 15 grains. These drivages are suspended, and the shaftmen have resumed sinking below the 960 feet levels, and will at same time make necessary excavations for plats. When completed the 960 feet levels will be resumed. The 860 feet levels south driven 24 feet, total 216 feet 3 inches. Lode 1 foot 6 inches, value 1 ounce 0 dwts. 17 grains. No. 1 winze 860 feet level south sunk 7 feet 9 inches, total 45 feet. Lode 1 foot 9 inches, value 8 dwts. 17 grains. The 860 feet level north driven 20 feet 6 inches total 148 feet. Lode 3 inches, value 6 dwts. 12 grains. No. 1 winze, 860 feet level north, sunk 5 feet 9 inches, total 12 feet 6 inches. Lode 1 foot, value 7 dwts. 15 grains. The 760 feet level south driven 15 feet 6 inches, total 348 feet. Lode 1 foot 4 inches, value 10 dwts. 21 grains. No. 1 winze, 760 feet level south, sunk 6 feet 3 inches, total 82 feet. Lode 1 foot, value 9 dwts. 19 grains. The 760 feet level north driven 10 feet 6 inches, total 203 feet 3 inches. Lode 1 foot, value 7 dwts. 15 grains. No. 1 winze, 760 feet level north, sunk 7 feet 9 inches, total 80 feet. Lode 1 foot, value 5 dwts. 10 grains. The 660 feet level south driven 18 feet 9 inches, total 841 feet. Lode 2 feet 6 inches, value 9 dwts. 19 grains. No. 3 winze, 660 feet level south, sunk 6 feet 3 inches, total 98 feet 9 inches. Lode 1 foot, value 6 dwts. 12 grains. No. 4 winze, 660 feet level south, sunk 1 foot 6 inches, total 50 feet 9 inches. Lode 1 foot, value 10 dwts. 21 grains. No. 5 winze, 660 feet level south, sunk 8 feet 9 inches, total 47 feet. Lode 2 feet 6 inches, value 2 ounces 3 dwts. 13 grains. No. 7 winze, 560 feet level south, sunk 9 feet, total 69 feet 3 inches. Lode 2 feet 6 inches, value 3 ounces 5 dwts. 8 grains. The 360 feet level north, driven 2 feet 3 inches, total 360 feet 9 inches. Lode 6 inches, value 13 dwts. 2 grains. The 280 feet level north, driving north on fold, driven 16 feet 3 inches, total 86 feet 9 inches. Lode 3 feet, value 9 dwts. 19 grains. No. 4 winze, 280 feet level north, sunk 9 feet, total 16 feet 9 inches. Lode 6 inches, value 8 dwts. 17 grains. No. 4 winze, 215 feet level north, sunk 8 feet 10 inches, total 73 feet 10 inches. Lode 1 foot 3 inches, value 10 dwts 21 grains. Low's shaft, sunk 8 feet, total 660 feet 10 inches. The 610 feet level south, driven 14 feet 6 inches, total 121 feet 6 inches. The strata in the end has changed and the indications point to an improvement in the character of the lode. The 510 feet level south, driven 18 feet 6 inches, total 335 feet 3 inches. Lode 6 inches, assay value 1 ounce 1 dwt. 19 grains. No. 1 winze, 510 feet level south sunk 8 feet 6 inches, total 59 feet. Lode 2 feet, value 1 ounce 2 dwts. 21 grains.—Probyn's shaft. Crosscut east from 1050 feet level north driven 12 feet 6 inches, total 40 feet. The 950 feet level south driven 16 feet 6 inches, total 312 feet 6 inches. Lode very small; no sample. No. 1 winze, 950 feet level south sunk 6 feet 3 inches, total 42 feet. Lode 1 foot wide, assay value 16 dwts. 5 grains. No. 1 winze, 950 feet level north sunk 5 feet 3 inches, total 87 feet 6 inches. Lode 6 inches, value 9 dwts. 19 grains.—No. 2 trial shaft. The 250 feet level south driven 7 feet, total 117 feet. Lode 1 foot, value, 6 dwts. 12 grains. The 250 feet level north driven 8 feet, total 127 feet. Lode 2 feet, value 8 dwts. 17 grains.—Stopes for month. Taylor's shaft. Cutting plats at 660 feet level 11½ fathoms. Back of 460 feet level south stoped 13¾ fathoms. Lode 4 feet 9 inches, value 9 dwts. 6 grains. Bottom of 360 feet level south stoped 78¾ fathoms. Lode 3 feet 8 inches, value 16 dwts. 21 grains. Bottom of 280 feet level south stoped 15 fathoms. Lode 4 feet, value 1 ounce 11 dwts. 13 grains. Bottom of level south from No. 4 rise, back of 280 feet level south, stoped 8½ fathoms. Lode 2 feet, value 2 ounces 17 dwts. 4 grains.—Wallroth's shaft. Back of 660 feet level south stoped 25 fathoms. Lode 2 feet 3 inches, value 1 ounce 15 dwts. 9 grains. Bottom of 660 feet level north stoped 7½ fathoms. Lode 3 feet, value 1 ounce 6 dwts. 16 grains. Bottom of 560 feet level south stoped 9¾ fathoms. Lode 4 feet 6 inches, value 3 ounces 17 dwts. 20 grains. Back of 560 feet level south stoped 13 fathoms. Lode 3 feet 6 inches, value 4 ounces 1 dwt. 2 grains. Bottom of 560 feet level north stoped 5½ fathoms. Lode 1 foot 6 inches, value 2 ounces 8 dwts. 10 grains. Bottom of 460 feet level south stoped 38 fathoms. Lode 2 feet, value 1 ounce 5 dwts. Back of 460 feet level south stoped 9 fathoms. Lode 3 feet, value 9 dwts. 19 grains. Bottom of 460 feet level north stoped 8¾ fathoms. Lode 1 foot 6 inches, value 17 dwts. 10 grains. Bottom of 360 feet level south stoped 41¼ fathoms. Lode 2 feet 10 inches, value 2 ounces 2 dwts. 3 grains. Back of 360 feet level south stoped ¾ fathom. Lode 1 foot 6 inches, value 6 ounces 10 dwts. 16 grains. Bottom of 360 feet level north stoped 3¾ fathoms. Lode 2 feet, value 8 dwts. 17 grains. Bottom of 280 feet level south stoped 10 fathoms. Lode 3 feet, value 12 dwts. 12 grains. Bottom of 215 feet level north stoped 10¼ fathoms. Lode 1 foot, value 1 ounce 13 dwts. 9 grains. Back of 215 feet level north stoped 6¾ fathoms. Lode 1 foot, value 9 dwts. 19 grains.—Low's shaft. Bottom of 430 feet level south stoped 10¼ fathoms. Lode 1 foot 9 inches, value 1 ounce 12 dwts. 15 grains. Back of intermediate level north back of 200 feet level south stoped 30 fathoms. Lode 2 feet, value 7 dwts. 15 grains.—Probyn's shaft. Bottom of 650 feet level south stoped 6¾ fathoms. Lode 1 foot 2 inches, value 6 dwts. 12 grains. Back of 650 feet level south stoped 5 fathoms. Lode 2 feet, value 5 dwts. 10 grains.—Exploratory work. Wallroth's shaft. The crosscut east from 760 feet level south commenced, driven 16 feet. The cross cut west from 760 feet level south commenced, driven 21 feet. The crosscut east from 460 feet level north driven 1 foot 3 inches, total 24 feet 3 inches. The cross cut east from 360 feet level north commenced, driven 10 feet. The crosscut east from 280 feet level south driven 37 feet, total 203 feet.—Munday's lode. Explorations. The lode in the level south from 280 feet crosscut west having shown no improvement for the distance driven (66 feet), we have, as intimated in the last report, commenced a crosscut east to intersect No. 1 branch passed through in the crosscut, distance driven 23 feet 6 inches. We are daily expecting to intersect the quartz.—Probyn's shaft. The crosscut east from 450 feet level south driven 24 feet 6 inches, total 411 feet 6 inches.

FORTUNA.—Mine report, dated January 16: Canada Incosa Mine. In the 110 fathoms level driving west of San Pedro shaft the lode is larger and looks more promising.—Las Salidos Mine. The lode in the 200 fathom level driving east of Taylor's engine-shaft is chiefly composed of quartz and turns out some stones of lead ore In the 105 east of Palgrave's shaft, valued at ¼ ton per fathom the lode is more regular, and looks kindly for further improvement. No change of importance has occurred in the stopes since last reported. Surface works are kept on very regularly, and the machinery is in good working order. Estimated raisings for January 250 tons. The tributers returned 94 tons of mineral in the past month.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of January 24 (4 o'clock) as follows:—In the earlier part of this week there was a good demand for several mines, particularly for Dolcoath and Tincroft, which, in an absence of sellers, advanced £12 and £2 respectively, but market subsequently became easier. There is not much doing to-day. Following are quotations:—Blue Hills, ¼ to ¼; Carn Brea, 1¼ to 1⅜; Cook's Kitchen, ¾ to 1⅛; Dolcoath, 43 to 45; East Pool, 4¼ to 4⅜; Killifreth, ⅞ to 1; South Condurrow, ⅝ to ¾; South Crofty, ⅝ to ¾; South Wheal Frances, ⅜ to ½; Tincroft, 4 to 4⅛; West Frances, ¼ to ⅜; West Kitty, 5 to 5¼; Wheal Agar, ¼ to ⅜; Wheal Basset, 1¼ to 1⅜; Wheal Grenville, 11¼ to 11⅜; Wheal Kitty (St. Agnes), ⅛ to ¼.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (January 24) as follows:—The mining market was active at the opening of the week, with a good demand for most shares on the improvement of tin, the reaction being only temporary. Prices are again weaker. Closing prices:—Carn Brea, 2 to 2⅛; Cook's Kitchen, ¾ to 1; Devon Consols, 1¼ to 1⅜; Dolcoath, 42½ to 43; East Pool, 4¼ to 4⅜; Killifreth, 21s. to 22s. 6d.; Polberro, ¾ to 1; South Crofty, ⅝ to ¾; Tincroft, 5 to 5⅛; West Kitty, 5⅛ to 5¼; Wheal Agar, ⅛ to ¼; Wheal Basset, 1⅛ to 1⅜; Wheal Grenville, 11⅜ to 12; Wheal Kitty, ⅛ to ¼.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of Thursday, January 24:—The market has been fairly active this week, and some shares show a considerable rise, Dolcoath leading the way with £5, closing 44 to 45. There has been an enquiry for low-priced shares, but sellers are shy. Quotations herewith:—Blue Hills, ⅛ to ¼; Carn Brea, 1¼ to 2; Cook's Kitchen, ¾ to 1; Dolcoath, 44 to 45; East Pool, 4¼ to 5; Killifreth, ¾ to 1; Polberro, ¾ to 1; South Condurrow, ⅛ to ⅜; South Crofty, ⅝ to ¾; Tincroft, 4 to 4⅛; West Frances, ⅛ to ¼; West Kitty, 5 to 5¼; Wheal Agar, ¼ to ⅜; Wheal Basset, 1¼ to 2; Wheal Grenville, 11¼ to 12⅛; Wheal Kitty, ⅛ to ¼. Tin, £59⅛.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write January 24th (noon):—With the general statement that home rails are better on the whole, and Americans and Canadians lower for the week, we give the daily movements, as in markets like those ruling at present, changes of a week by no means include the changes of the week. Friday saw some rather unequal movements in home rails, as, whilst the first-rank rails went better, the more speculative issues on which a rise had taken place before went a bit lower on taking of profits. Americans and Canadians were also a bit lower in tone, and just a fair number of transactions were reported on the Yankee market. Mexicans rose on the preference issues. Investments of the lower rank were enquired for—that is, as regards the lower class dividend-giving companies. Saturday was a dull market all round, and lower prices obtained generally. On Monday the market opened still easy, but the dividend announcement on Lancashire and Yorkshire Railway helped the tone of things, and, for the most part, home rails showed stronger. The other railway markets ruled flat, Americans, Canadians, and Mexicans showing losses all round of more or less amount. Tuesday brought in some irregularity for home rails. Scotch stocks were somewhat in favour, and Chatham and Dover A improved slightly, but otherwise prices were a bit easier. Americans and Canadians, which have run together about all week, kept stagnant, with prices easier, on the whole. Mexicans, however, firmed up a bit. Yesterday found home rails rather better again. This movement in this market is attributed to the extreme prices of the top rank investment securities bringing investors into demand for good (though it may be said second-rate) securities. Under normal conditions, no doubt these, though rated second or lower down in the scale, may be fairly expected to make profits fully up to past years, and these feelings seem to be gaining ground in the presence of such big prices for the "gilt-edged" investments. Americans and Canadians again dull, and speculation dwindling therein. Mexicans hardened a little again. A fair demand came up for good dividend-paying miscellaneous shares. A feature this day was the rise in Ship Canal shares. There were some rumours about to account for the rise, but these rumours have not as yet been followed by any public pronouncement in the direction of the rumoured operation. This morning prices opened without definite change from last night, and changes for to-day will be reported later. Consols have this week risen 7-16, and have created another record price. Colonial government bonds, &c., show only upward changes—viz., Victoria Inscribed, 2; South Australian Registered, 1; New South Wales Inscribed, 1; ditto Consolidated, 1; New Zealand Inscribed, ⅛; and Canada Registered, ⅛. Home corporation stocks are not altered much, but the changes marked are all on the higher side: Hull Three and a-Half per Cent. being 1; Manchester Four per Cent., ⅛ to 1; Birmingham Three and a-Half per Cent., ⅛; and Leeds Four per Cent., ⅛ up. Foreigners are irregular, with changes mostly slight on either side, with the exception of Uruguay Three and a-Half per Cent., which are well on to a 2 rise on the week.—Higher: Uruguay, Three and a-Half per cent., 1⅝ to 1¾; Mexican, Six per Cent., ⅜; Argentine, Five per Cent. and Six per Cent., ⅛ each; and Egyptian Unified, ⅝.—Lower: Portuguese Three per Cent., ⅝; Spanish Four per Cent., ⅜; Italian Rentes, ⅛; and Turkish D, ⅛. As regards miscellaneous, with the exception of specialities, business has not been on a large scale generally. Prices, however, in the majority of case are better, there being, however, a respectable minority of declines.

BANKS.—London and Midlands and Salfords have each been done repeatedly, and in smaller degree, so have Consolidateds, but otherwise the transactions are few. Changes in quotations few, and mostly on the upward side.

INSURANCE.—With but few exceptions current prices are better, but in the advances and the few declines the extent of movement is small.

COAL, IRON, &c.—Very little done, and nothing of consequence to to record in changes of quotations.

MINES.—Mysores ⅛ better, rest of changes of those quoted here on the adverse side, but not specially notable. The business, however, has been in shares not listed here, and daily a fair number of transactions have been reported. The changes herein, however, are necessarily only reflections of movements in other markets.

COTTON SPINNING, &C.—Market dull and quite lifeless, except for one or two special concerns in which prices have ruled firm. Otherwise nothing doing.

BREWERIES.—Chesters are easier, but rest where altered are higher. Ship Canals have had a sharp run up, and though not maintaining quite best figures show (up to present) rises on the week of ⅜ in Ordinary and 5-16 in Preference.

Later (4.0 p.m.).—Home rails have been firm again to-day, especially the heavy lines. In Canadians, Trunk issues unaltered, but Pacifics rather better. Mexicans continue to improve. Americans opened dull and remained so most of the day. At the close, however, they came into favour, and some better prices were quoted.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (January 24), writes:—During the past week the markets have been firm, although for a time under the influence of realisations. The demand for investments, not only in this country, but on the Continent, and the prospect of increased returns from the South African properties, has again directed attention to these shares. There is a more confident tone generally, as evidenced by the rise in oil companies' shares.

In shares of coal, iron, and steel companies there has not been much business doing. African Coal are at 5s. 6d. to 6s.; Ebbw Vale, 7⅞; Niddrie, 45s.; Steel Company of Scotland, 41s.

In shares of copper concerns business is quiet. Tharsis and Tinto steady. German Elmore, 3s. 6d. to 4s 6d. Killifreth Tin shares are at 20s. to 22s.

In shares of gold and silver mines a large amount of business has been done. Montana have been sold from 11s. 3d. to 12s. South African Trust and Finance advanced to 15s. 6d. on the announcement that they were to be taken over by the Johannesburg Consolidated Investment Company, but are now about 14s. Champ d'Or Deep declined to 18s. on rumours that the mill had been shut down, but have recovered to 20s. Chartered shares declined to 40s. after the meeting, on realisations, but have recovered to 45s. 9d. A dividend at the rate of 20 per cent. on Bechuanaland is announced. La Plata are firmer, and it is understood a circular will soon be issued to the shareholders giving information. It is said that arrangements are in progress for the sale of a block of their quartz claims, while the sale by the Gold Fields of Mozambique Company (in which the La Plata are large shareholders) of alluvial claims for £50,000 in cash and shares ought to yield a return to the La Plata shareholders. Lisbon continue in favour among the cheaper shares, and May Consolidated and Meyer and Charlton among the dearer ones. Broken Hill show a recovering tendency at 36s. 6d. African Land, 5s.; Austin, 25s.; Bonnie Dundee, 14s. 3d.; Bayley's Reward, 12s. 6d.; Buffelsdoorn, 67s. 6d.; Balkis Land, 5s.; Carrington, 6s.; Coolgardie (Sherlaw's), 6s. 9d.; Crœsus, 45s. 6d.; Caratal, 1s. 8d.; Dickens Custer, 2s. 3d.; Dawn Block, 10s. 6d.; Dawn P.C., 5s. 6d.; East Rand, 52s. 6d.; Eastleigh's, 31s. 3d.; Frank Johnson, 19s. 9d.; Glencairn, 77s. 6d.; Gravel, 4s. 9d.; Gold Hill, 4½d.; Hannan's Brownhill, 30s. 9d.; Hauraki, 3s. 9d.; Klerksdorp, 7s. 3d.; Knight's, 65s.; Louis d'Or, 3s. 9d.; Luipaard's Vlei, 16s.; Londonderry, 5s. prem.; Mosman, 4s. 6d.; Mozambique, 25s.; Mallina, 20s. 3d.; North Sheba, 7s. 3d.; Orion, 67s. 6d.; Otto's Kopje, 7s.; Oceana, 50s.; Orita, 1s. 9d.; Paarl Central, 26s. 6d.; Roodepoort Deep, 52s. 6d.; Silver King, 2s. 9d.; St. Augustine, 4s. 6d.; United African Land, 4s.; Victoria and Alcamira Pref., 1s. 6d.; West Australian Exploring, 8s. 9d, prem.; Wolhuter, 5⅝; and West Argentine, 2s. 6d.

In shares of miscellaneous companies the principal feature has been an advance in oil companies' shares, on anticipation that an agreement is likely to be arrived at with the Standard Oil Company of America to raise the price of paraffin. Broxburn have advanced to 9 1-16; Hermand, 1s. 6d.; Linlithgow, 22s.; and Young's Oil, 27s. 3d. Lawes Chemical 7⅞.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of January 24:—A fair amount of business has been done during the past week. Most of the leading railway stocks have improved. Caledonian Deferred have advanced from 42 15-16 to 43 4-16, North British from 38⅞ to 39 1-16, Glasgow and South-Western from 108½ to 111½, Great North of Scotland from 93⅛ to 99½, London and North-Western from 178¼ to 180, North-Eastern from 166½ to 168¾. High-class investment stocks have advanced to still higher prices. In bank shares, Bank of Scotland have risen from 339 to 341, National from 337½ to 338. Clydesdales have declined from 19 13 16 to 19⅝, British Linen from 386 to 385. In insurance shares, Caledonian have declined from 29 to 28⅞, British and Foreign Marine have improved from 24⅞ to 24½, Liverpool, London, and Globe from 48¼ to 48⅜, Northern from 68⅞ to 69½, Royal from 52 to 52½, Scottish Union and National A from 85s. 3d. to 89s. 3d., National Guarantee from 73s. to 74s. Oil shares, which had long remained stagnant, have had a sudden rise. Broxburn have advanced from 8½ to 9, Hermand from 6d. to 1s. 3d., Linlithgow from 12s. to 12s. 9d., Pumpherston from 5 to 6 1-16, Young's from 19s. 6d. to 27s. 3d. Edinburgh United Breweries are 20s. higher at £8 19s., Coat's unchanged at 25.

WANTED.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.**

RE-APPOINTMENT WANTED,

AS OVERHEAD MANAGER, or charge of Extraction Plant in Gold Mines. Just home after 5 years' contract in Chili. Experience of treatment of ore, where there is scarcity of water, Dry Grinding, Lührig Concentration, Amalgamation, &c. 4 years assistant with London firm of assayers, &c., to Bank of England and H.M. Mint. Well up in prospecting work; Fellow of Chemical Society; speaks Spanish; high testimonials.
C. W. LEE, Oaklands, Dewsbury.

ASSAYER.—ADVERTISER, A.R.S.M., fully qualified, is OPEN for an APPOINTMENT at home or abroad.
Address, in first instance, "REX," MINING JOURNAL Office, 18, Finch Lane, London, E.C.

METALLURGICAL ENGINEER AND CHEMIST, who has had wide experience in the treatment of refractory gold and silver ores, requires AN APPOINTMENT as Manager of Gold or Silver Mill. Has had experience of ore dressing in all its branches, and in the erection and running of machinery. Highest testimonials.
Address "Ag.," care of MINING JOURNAL Office, 18, Finch Lane, London, E.C.

SALE BY AUCTION.

*** Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.**

By Order of the Receiver for the Debenture Holders.

SCORDALE LEAD MINING SYNDICATE (LIMITED).

IN LIQUIDATION.

The VALUABLE and EXTENSIVE LEASEHOLD MINES known as the

SCORDALE LEAD MINES,

covering an area of 7600 acres, or nearly 12 square miles, and situate about five miles from the county town of Appleby, in the county of Westmoreland, together with the nearly new plant and machinery recently erected at a cost of about £7000, held for an unexpired term of 25 years, at a low ground rent or royalty.

MR. JAMES W. COADE will SELL the above by AUCTION at the Mart, Tokenhouse Yard, London, E.C., on WEDNESday, February 13th, 1895, at 2 o'clock precisely. Reports and Ordnance survey of the property may be seen at the offices of W. Battye, Esq., 16, Great Winchester Street, E.C.; Solicitors, Messrs. M. Webb and Sons, Barbican Chambers, Aldersgate Street, E.C.
Particulars can be obtained at the offices of W. Battye, Esq., of the Solicitors, and of the Auctioneer, 118, Southampton Row, W.C.

FOR SALE.

Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

WINDING ENGINES.

PAIRS, with CYLINDERS 36, 25, 20, 18, 16, 14, 12, 10, and 8 inches diameter, good, second-hand, cheap.
RATCLIFFE and SONS, Hawarden Iron Works, Chester.

SHIPPING.

UNION LINE.

FOR SOUTH AFRICAN GOLD FIELDS.—WEEKLY SERVICE.—CAPE OF GOOD HOPE, NATAL, and EAST AFRICAN ROYAL MAIL STEAMERS.—The UNION STEAMSHIP COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will Sail as follows for the SOUTH and EAST AFRICAN PORTS, to ZANZIBAR, calling at LISBON, MADEIRA, and TENERIFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
¶‡Athenian	—	—	—	Feb. 2
‡Guelph (t.'screw)	Jan. 27	—	Feb. 2	Feb. 9
†Mexican	—	—	—	Feb. 16
‡§Gaul (tw. screw)	—	Feb. 10	Feb. 16	Feb. 23

† Calling at Madeira. ‡ Via Lisbon and Tenerife. § To East Africa.
Free railway tickets from London and Plymouth to Southampton.
Cheap Tickets are issued for Passengers' Friends.
The Union Line Express is despatched from Waterloo Station (Main Line Platform) every Saturday.
RETURN TICKETS ISSUED.
Apply to the UNION STEAMSHIP COMPANY (Limited), Canute Road, Southampton; 14, Cockspur Street, London, S.W; and South African House, 94 to 96, Bishopsgate Street Within, London, E.C.

CASTLE LINE.—CAPE & NATAL MAILS.

WEEKLY SERVICE FOR THE GOLD FIELDS OF SOUTH AFRICA.—The CASTLE COMPANY'S STEAMERS leave LONDON (East India Dock Basin, Blackwall) every FRIDAY, and sail from SOUTHAMPTON every SATURDAY.

Steamers.	London.	Southampton.
†Dunbar Castle (via Canaries)	Feb. 1	Feb. 2
Roslin Castle (via Madeira)	Feb. 8	Feb. 9
Arundel Castle (via Canaries)	Feb. 15	Feb. 16
Dunottar Castle (via Madeira)	Feb. 22	Feb. 23

† For Madagascar and Mauritius.
Return tickets to all Ports.
Free Tickets by Castle Express from Waterloo to Southampton.
Apply to DONALD CURRIE and Co., 3, Fenchurch Street, London, E.C
West End Agency, THOS. COOK AND SON, 13, Cockspur Street.

ESTABLISHED 1851.

BIRKBECK BANK

SOUTHAMPTON BUILDINGS, CHANCERY LANE, LONDON.
TWO-AND-A-HALF per CENT. INTEREST allowed on DEPOSITS repayable on Demand.
TWO per CENT. on CURRENT ACCOUNTS on the minimum monthly balances, when not drawn below £100.
SAVINGS DEPARTMENT.
For the encouragement of Thrift, the Bank receives small sums on Deposit and allows Interest monthly on each completed £1.
The Birkbeck Almanack, with full particulars, post free.
FRANCIS RAVENSCROFT, Manager.

ELMSLIE (LIMITED).

C. T. ELMSLIE, J.P., London. A. B. ELMSLIE, Australia.
AUSTRALIAN INVESTMENT BROKERS,
8, WOOL EXCHANGE, LONDON, E.C.
With Offices or Agents at all the principal centres in Australia.
Telegrams "Abelmoske," London.
Mining and Commercial Investment List and Report for January, containing full particulars and prices of the soundest dividend paying securities of the Australian Colonies, yielding to investors from 6 to 25 PER CENT., now ready, post free, upon application. Having their own Mining Engineers constantly inspecting mines on the various Gold Fields, Messrs. ELMSLIE make a speciality of QUEENSLAND and WEST AUSTRALIAN Mining.

PUBLICATIONS.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line, with a minimum charge of 4s.**

A HAND-BOOK of GOLD MILLING. By HENRY LOUIS, A.R.S.M., F.G.S., &c.

"It is a valuable companion, and should be found on the shelves, not only of the man in charge of the mill, but also of the student and mining engineer."—*The Mining Journal.*

"We have no hesitation in cordially commending Mr. Louis's treatise as an all-round excellent work on gold milling and gold milling machinery."—*Mechanical World.*

"The author shows thorough familiarity with his subject, and expresses himself clearly and concisely in not too technical language."—*Nation.*

Crown 8vo., PRICE 10s. net.

THE GOLDEN QUARTZ REEFS of AUSTRALIA. By WILLIAM NICHOLAS, F.G.S., with Illustrations. A series of Articles especially relating to the Bendigo Gold Field, Victoria.
PRICE 2s., Post Free.

A NEW GUIDE TO THE IRON TRADE, OR MILL MANAGERS' AND STOCK TAKERS' ASSISTANT. By JAMES ROSE, of Batman's Hill Ironworks. Second Edition. Comprising a Series of New and Comprehensive Tables, practically arranged to show at one view the Weight of Iron required to produce Boiler Plates, Sheet Iron, and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions, to which is added a variety of Tables for the convenience of Merchants, including a Russian table.

"The Tables are plainly laid down, and the information desired can be instantaneously obtained."—*The Mining Journal.*

"900 copies have been ordered in Wigan alone, and this is but a tithe of those to whom the book should commend itself."—*Wigan Examiner.*

"The work is replete on the subject of underground management."—M. BANEK.

PRICE 8s. 6d.

THE COLLIERY READY-RECKONER and WAGES CALCULATOR. By JAMES IRELAND.

"Will be the means of preventing many disputes between pay clerks and colliers."—*The Mining Journal.*

PRICE 1s. 6d. Post Free.

TACKNOTE: A FORM OF LICENCE TO EXPLORE AND SEARCH FOR MINES, MINERALS, &c. Price 1s., post free.

NOTES ON THE PHILIPPINE ISLANDS: A PAMPHLET REPRINT. By FRANK KARUTH, F.R.G.S. Price 6d.

LONDON:
"THE MINING JOURNAL,"
18, FINCH LANE, E.C., and
3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

This day, Large Crown 8vo. with Diagrams and Working Drawings, 7s. 6d., Cloth.

THE CYANIDE PROCESS
FOR THE
EXTRACTION OF GOLD;
and its Practical Application on the Witwatersrand Gold Fields in South Africa.
By M. EISSLER, Mining Engineer.
Author of "The Metallurgy of Gold," &c.
LONDON:
CROSBY LOCKWOOD and SON, 7, Stationers' Hall Court, E.C.

THE WEST BRITON AND CORNWALL ADVERTISER.

The best Family Newspaper for Cornwall and the West of England generally.
MONDAY AFTERNOON, 4 Pages, One Halfpenny.
THURSDAY AFTERNOON, 8 Pages, 56 Columns, One Penny.
The Largest and Most Influential Journal of Cornwall.
The Best Advertising Medium in the West of England.
The Largest Circulation of any Cornish Newspaper.
The "WEST BRITON" contains more reliable informatio respecting Cornish Mines than any other Newspaper.
HEARD and SONS, Publishers, Truro

CORNISH POST AND MINING NEWS,
A HIGH-CLASS UNIONIST NEWSPAPER.
Specially devoted to Cornish Mining, upon which it contains the fullest and most reliable information published. It is the only eight-paged newspaper printed in the Mining Division of Cornwall.
ISSUED EVERY FRIDAY MORNING,
PRICE ONE PENNY.
The Cornish Post and Mining News Co. (Limited),
East Charles Street, Camborne, Cornwal

THE ADELAIDE OBSERVER.

Mining men and others in all parts of the world, who wish to secure the most complete budget of Australian news, and particularly of Mining Intelligence, will do well to have THE ADELAIDE OBSERVER regularly posted to them.
Special attention is given to Mining operations in Western Australia as well as in all other parts of Australasia.
THE ADELAIDE OBSERVER, Price Sixpence. Posted abroad, 7s. 6d. per quarter, or £1 10s. per annum.
HEAD OFFICE—GRENFELL STREET, ADELAIDE, SOUTH AUSTRALIA.
LONDON OFFICE—80, FLEET STREET.
THE OBSERVER is a splendid medium for Advertisements of Mining Machinery and requisites.
Advertisements received by all the principal London Agents or at the London address, given above.

TO LET.

*** Prepaid Advertisements are inserted in this column at th rate of 8d. per line with a minimum charge of 4s.**

COLLIERY TO LET, IN MONMOUTHSHIRE, GAS AND STEAM COALS, 12 MILES FROM NEWPORT.
TOTAL MINERAL AREA of principal seams unworked 1100 acres. PRESENT CAPACITY 500 tons per day, could be increased. LEASE FOR 17½ YEARS with probability of extension. ROYALTIES 7½d. per ton. Large and small coal. RAILWAY COMMUNICATIONS in every direction.
For further particulars apply to Messrs. COLBORNE, WARD, AND COLBORNE, Solicitors, Victoria Chambers, Newport, Mon.

BUSINESS CARDS.

AERIAL ROPEWAYS.
"OTTO" SYSTEM.
R. E. COMMANS (late Commans and Co.), 6, Queen Street Place, London, E.C.

ASBESTOS.
THE UNITED ASBESTOS COMPANY (Limited), Dock House, Billiter Street, London, E.C. Asbestos Goods of the highest quality.

CONCENTRATORS.
THE CLARKSON-STANFIELD CONCENTRATOR (Limited). New system for the treatment of gold, silver, copper, lead, and other ores. Address, 6, Colonial Avenue, Minories, London, E.

EXPLOSIVES FOR MINING.
NOBEL'S EXPLOSIVES COMPANY (Limited), Glasgow. Manufacturers of Gelignite, Gelatine-Dynamite, Dynamite, Detonators, Electric Detonator Fuses, &c., &c.

FUSE MANUFACTURERS.
WILLIAM BENNETT, SONS, & CO., Roskear Fuse Works, Camborne, Cornwall. Manufacturers of the celebrated "Crown Brand" Blasting Fuse for Mining Purposes.

IRON BUILDINGS.
ISAAC DIXON & CO., Liverpool. Iron roofs, Houses, and mining machinery buildings of every description.

"JODELITE."
(REGISTERED.)
JOSEPH DEE, 5, Cross Street, Manchester. The Best and Cheapest Preventative of Dry Rot, Decay in Timber, and Damp Walls, Wood Paving Blocks, Ropes, &c.

LUBRICATING OILS AND RAILWAY AND STEAMER GREASES.
F. J. KUHNE,
NEW YORK, and 30, GREAT ST. HELEN'S LONDON, E.C.
Represented by WM. J. PATTISON.

METAL PERFORATORS, &c.
J. & F. POOL,
METAL PERFORATORS & WIRE WEAVERS
COPPERHOUSE, HAYLE, CORNWALL.
SPECIALITIES: All descriptions of Perforated Metal Plates, Stamps' Battery-Screens, Wire Gauze and Sieves for Foreign and Home Mining, and other Purposes. Export orders carefully and promptly executed.

MINING INSTRUMENTS.
JOHN DAVIS & SON, All Saint's Works, Derby; and 118, Newgate Street, London. Mathematical instruments and miner's safety lamps.

MINING MACHINERY.
FRASER & CHALMERS (Limited), 43, Threadneedle Street, London, E.C. Mining machinery of the most approved design.

THOMAS LARMUTH and CO., Salford, Manchester, Manufacturers of Patent "Hirnant" Plant, Rock Drills, Air Compressors, Sinking Carriages, &c.
Agents for South Africa—Messrs. REUNERT and LENZ, Johannesburg.

ROBEY & CO. (LIMITED), Manufacturers of Steam Engines, Mining Machinery, &c. Makers of the Robey Patent Automatic Expansion Gear.—Globe Works, Lincoln.

ORE DRESSING MACHINERY.
THE LÜHRIG COAL AND ORE DRESSING APPLIANCES (LIMITED),
32, VICTORIA STREET, LONDON, S.W.
COMPLETE DRESSING PLANTS for Gold, Silver, Lead, and Copper Ores, &c., designed and erected.
LÜHRIG SINGLE AND COMPOUND VANNERS for Low Grade Ores and Tailings.
IMPROVED BREAKERS, ROLLS, JIGS, AND SEPARATING DRUMS.
Tests made with Samples at London Works Free of Charge.

ROCK DRILLS.
RICHARD SCHRAM & CO, 17a, Great George Street Westminster, S.W.

STONEBREAKING MACHINERY.
W. H. BAXTER, Engineer, Leeds. Stone breaking and ore crushing machinery. All highest awards received for 12 years' Guaranteed for economy in power, efficiency and durability over all others. Catalogues free.

GATES IRON WORKS, 73A, Queen Victoria Street, E.C. The Gates Rock and Ore Breaker effects a great saving in power.

TUBE MAKER.
GEO. J. CHATTERTON, manufacturer of lead pipe, block tin pipe, and tinned composition gas tube, Caledonian Road, London, N

TURBINES.
G. GILKES and CO., Kendal, Makers of The Vortex Turbine.

THE DUNDEE ADVERTISER,
The LEADING DAILY PAPER in SCOTLAND North of the FORTH.
FIRST in CIRCULATION. FIRST in INFLUENCE.
FIRST in ADVERTISEMENTS.
FIRST in PARLIAMENTARY NEWS.
FIRST in GENERAL INTELLIGENCE.
FIRST in COMMERCIAL INFORMATION.
The Recognised Advertising Medium for Dundee, Forfarshire, Fifeshire, Perthshire, and North of Scotland.
JOHN LENG and Co.,
7 to 25, Bank St., Dundee; and 186, Fleet St., London.

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

(*Cabled Weekly*).

Paarl Central Mine.

Owing to development not being pushed ahead as fast as it should have been, the best ore has been worked out, and it will be some time before the mine is again in proper order.

Ginsburg Mine.

This company is heavily in debt, and will be amalgamated with adjoining claims.

West Rand Mines.

This company will shortly be on the market for flotation. They own all the deep levels of the George and May, and also have several other payable reefs on the property.

Knight's.

On the central section the assays are still improving.

Ferreira.

There will be 60 stamps running this year.

Meyer and Charlton.

Mine looking better.

Cassel's Colliery.

About 25,000 tons of coal were sold this month, and a profit of over £4500 assured.

HANNAN'S REWARD GOLD MINING COMPANY (LIMITED).—An extraordinary general meeting of this company was held on Friday in last week, Dr. J. H. Trouncer presiding. Resolutions were passed providing (1) "That the company, with respect to fully paid-up shares, might issue share warrants stating that the bearer was entitled to the shares therein specified, and might provide by coupons or otherwise for the payment of future dividends on the shares included in such warrants." (2) "That the remuneration of the directors should be reduced from £150 to £100 per annum, and that of the Chairman from £200 to £150. The resolution further provided that the profits earned by the company should be used first, if necessary, for the creation of a reserve fund; secondly, in payment to the holders of ordinary shares of a dividend at the rate of 8 per cent. per annum on the amount paid up or credited as paid up on the shares held by them respectively; (3) That of the balance 85 per cent. should be divided among the holders of ordinary shares in proportion to the amount paid up, and 15 per cent. should be given to the directors to be distributed by them in accordance with Article 82."—At the ordinary general meeting, which followed, the Chairman stated that all the shares had been allotted, and that they had satisfied all the legal requirements. The manager and secretary on the mine, Mr. Corbould, he looked on as a most trustworthy friend. With regard to the mine itself, it required very little boring in consequence of the dryness of the country and the conformation of the rock, which yielded a large quantity of gold. In one small space alone of this property, about a couple of year ago £12 000 worth of gold was secured. The property had been worked now for more than 12 months, several shafts had been sunk, and 10 reefs had been discovered. They had received letters in confirmation of this from the underground miner and Mr. Corbould. He had also in his mind the observations made by Mr. Sherlaw, an expert, in the secretary's room some weeks back. Mr. Sherlaw visited their mine in August last, going through the whole of the workings, and his opinion was that they had a very valuable property, which was being developed in the best possible manner by Mr. Corbould. Mr. Corbould, he added, was not a man to spend money unnecessarily in development or to expose the property to any undue risks, and, indeed, he said, he was one of the best miners he had ever seen. Their manager had written saying that after sinking a bit of a winze on No. 6 reef he obtained the best quality of stone they had yet had in the mine, which proved that as far as they had gone the stone and the gold were going downwards. He further told them that the value of the No. 6 reef was 12 ounces to the ton, and estimated the value of the yield there at £6120, the expense and loss on stoping at £608, and the net profit at £5511. They looked forward, therefore, with the greatest confidence to the future, and hoped to be able to tell the shareholders in the course of a few months that they had obtained a very substantial profit. One important consideration was the water supply, and they were now getting their engines and machinery to work. In the course of two or three months they expected to have reached water; at any rate, by the time they were down to a depth of 400 feet, and they were already down to 90 feet or more now. If once they succeeded in getting to water the value of their mine would be very considerably enhanced. The average yield of the 10 reefs was 5 ounces to the ton. An average yield of only 2 ounces to the ton paid well in any mine. The St. John del Rey was content to get ½ ounce to the ton in the old days.—Messrs. Cooper Brothers and Co., were appointed auditors.—The Chairman congratulated the shareholders present on the fact that Mr. Rey, who was the representative of the large holding of shares in Paris, had been induced to join the board.—Mr. Hayward congratulated the shareholders on the possession of Mr. Corbould as manager. He was intimately acquainted with him, and it was impossible, he said, for them to have a better manager than he would undoubtedly make.—The meeting then closed.

GREAT COOLGARDIE GOLD MINE (LIMITED).—The statutory general meeting of the shareholders of this company was held on Saturday, at Cannon-street Hotel, E.C.—Mr J. J. Heath presided, and at once called upon the secretary (Mr. L. G. Brown) to read the reports of the directors. This stated that upon the receipt of formal notification from the Commercial Bank of Australia, advising them of the transfer of the property to the company, they at once dispatched one of the London board to see that everything was done in perfect order, and that no time should be lost in hastening the work at the mine. Accordingly, Mr. William Milford, mining engineer, and a gentleman of great mining experience, left in October for Coolgardie. Since Mr. Milford's arrival, the directors have received a cablegram stating that the reef had been struck. The directors were now anticipating at an early date a full and comprehensive report from Mr. Milford. The company's engineer (Mr. Begelhole) was expected to be on the spot shortly, to direct the operations. The shareholders would be glad to hear that the faith of the Australian owners of this property was such that they were willing to accept the purchase price of the property wholly in fully paid-up shares of the company; the company reserving £15,000 of the capital for the purpose of working capital. Notwithstanding the fluctuations which necessarily took place in mining shares, not a single transfer had been passed of shares that had not been sold at a premium.—On the motion of Mr. Sheridan a vote of thanks was given to the Chairman, and the proceedings terminated.

GOLD IN MADAGASCAR.—A Reuter's telegram dated Antananarivo, December 17, says that important discoveries of alluvial and reef gold, which were lately made in the district of Antsibanaka, situated north of that city, have since revealed the existence of a rich auriferous belt of hematite formation. At one point 1000 ounces were taken by the native workers from a plot of ground 20 feet by 3 feet, working at a depth of only a few feet. It is reported that in the immediate neighbourhood of this discovery are six reefs, all showing visible gold. Over a thousand natives are already working at these diggings on the license system.

THE UNITED ASBESTOS CO. (Limited),

DOCK HOUSE, BILLITER STREET, LONDON, E.C.

PIONEERS of the ASBESTOS Trade. The ONLY COMPANY in the WORLD owning and working Asbestos Mines both in ITALY and CANADA. All goods are made at our Works, near London, and are of the best possible description.

SPECIFY "SALAMANDER" BRAND.

Depots: NEWCASTLE-ON-TYNE, Quay Side; MANCHESTER, 34, Deansgate LIVERPOOL, 33, James. Street; GLASGOW, 54, Robertson Street; CARDIFF, 135, Bute Street; BRISTOL Provident Buildings, Clare Street ST. PETERSBURG, Gostinoe Dvor, (interior) No. 51.

MACARTHUR-FORREST PROCESS.

TO MINE OWNERS AND OTHERS

Having REFRACTORY GOLD ORES hitherto untreatable at a profit, the MACARTHUR-FORREST (PATENT) PROCESS OF GOLD EXTRACTION offers a solution of the difficulty.

The chief features of this Process are:—

SIMPLICITY, ECONOMY IN WORKING, and SMALL COST of PLANT.

PROPRIETORS:—

The Cassel Gold Extracting Co. (Ltd.)

Head Office—108a, Hope Street, Glasgow.
London Office—23, College Hill, Cannon Street, E.C.
Africa—The African Gold Recovery Co. (Ltd.), Johannesburg.
Australia—The Australian Gold Recovery Co. (Ltd.), 8, Post Office Chambers, Sydney, N.S.W., Charters Towers, Queensland, and Mr. Geo. S. Fowler, J.P., Adelaide.
United States—The Gold and Silver Extraction Co. of America (Ltd.), Denver, Colo.
Mexico—The Mexican Gold and Silver Recovery Co. (Ltd.), 2a, Calle de Providencia, No. 7, Mexico City, Mexico.
Chili—Mr. Wm. Jones, Calle Almendro, Valparaiso.
New Zealand—The Cassel Gold Extracting Co. (Ltd.), 205, Victoria Arcade, Auckland.
Canada—Mr. W. Pellew Harvey, F.C.S., 717 and 719, Pender Street, Vancouver City, British Columbia.

The CASSEL GOLD EXTRACTING Co. (Ltd.) are manufacturers of CYANIDE, suitable for the MacArthur-Forrest Process.

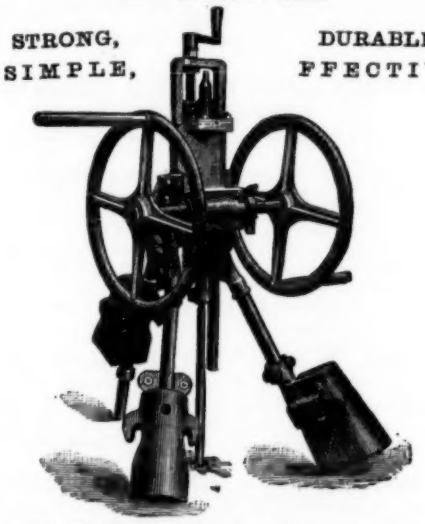
For terms, apply at Head Office of the Company,
108a, Hope Street, GLASGOW.

THE "MONARCH" ROCK DRILL,

FOR HAND OR ELECTRIC POWER,

MADE IN THREE SIZES.

STRONG, SIMPLE, DURABLE, EFFECTIVE.



TWO MAN POWER "MONARCH" HAND DRILL.

The most effective Machine for Boring Rock by Hand Labour or Electricity.

FOR PARTICULARS AND PRICES APPLY TO

J. H. WEATHERDON,

37, QUEEN VICTORIA STREET, LONDON, E.C.

THE STAFFORDSHIRE ADVERTISER.

ESTABLISHED 1795.

The Principal County Paper in the Midlands.

Advertisers will find it the BEST MEDIUM for reaching superior class of readers over large area centred by Staffordshire fifth county in population and sixth in wealth.

Published at Stafford every SATURDAY (Price Twopence), and to be obtained at Euston and Principal Bookstalls between London, Liverpool, and Manchester.

The COUNTY GENTLEMAN'S PAPER for Cheshire Shropshire, and North Wales is

THE CHESTER COURANT.

(ESTABLISHED 1730.)

The CHESTER COURANT goes into all the best houses, and has a Subscription List of remarkable scope and character.

It is a most suitable medium for advertising Patent Machinery used on large Farms or County Estates.

DELTA METAL

FOR ALL ENGINEERING WORK.

STRONGER AND MORE DURABLE THAN STEEL.

Specially Adapted for MINING WORK

on account of its very high Resistance to Corrosion.

DELTA

CAST, FORGED, STAMPED, ROLLED, DRAWN.

For full Particulars and Prices apply to

THE DELTA METAL COMPANY (Ltd).
110, Cannon Street, London, E.C.

Telegrams:—"DELTA," London. Telephone No. 11292.

"VALVE-OLEINE:"

675 DEGREES FIRE TEST.

MASTER MECHANICS, Purchasing Agents, Engineers and Practical Builders of costly Steam Plants and Locomotives &c., will be pleased to know that a Lubricant is now produced of such extraordinary high Fire Test as to make it proof against the great heat to which it is subjected, and is, therefore, a PERFECT LUBRICATOR where products of lower grade and fire tests pass off at once, leaving the parts subjected to wear, or greatly increasing the consumption of oil.

"VALVE-OLEINE" is a product in the highest state of filtration, is of the greatest viscosity, is entirely free from all acids and absolutely non-corrosive, and without doubt the finest and most thoroughly reliable CYLINDER LUBRICANT now on the market, and will naturally Lubricate 200 to 30 per cent. more than products of lower test.

☞ It is not only the BEST but the most ECONOMICAL lubricant. Manufacture and Sale controlled exclusively by

The Reliance Oil and Grease Co.,

CLEVELAND, OHIO, U.S.A.

AGENTS WANTED EVERYWHERE.

Write for Full Particulars and our New Catalogue of large line of products.

SAMPLES FREE.

Send 2 cent stamp for copy "Gems of Art." Free on application direct from Machinery Users.

Cable Address: "OLEINE," Cleveland, O.

Watch this Advertisement

Every other week.

PARKIN'S INDICATING SIGNAL BELLS

Are a SURE SAFEGUARD for Enginemen against winding without signal.

The Index stands at 0 till the signal is given, when it points to the number of strokes on the Bell.

Entirely Self-Acting. Steel Fittings.

Prices and particulars,

PARKIN'S SIGNAL WORKS, LIVERSEDGE, YORKS.

SOLE AGENTS FOR SCOTLAND:

Messrs. ARCHD. BAIRD and SON,

59-61, WATERLOO STREET, GLASGOW.

Export Agent—Mr. STEPHEN HUMBLE, Junr.,

9, Victoria Street Westminster, S.W.

THE WESTERN DAILY MERCURY.

The Paper for News.
The Paper for Advertisements.
The Paper for the People.

THE WESTERN WEEKLY MERCURY,

The Paper for the Household.

These Journals have an enormous circulation throughout Devon and Cornwall, and are conveyed by specially chartered trains.

OFFICES: PLYMOUTH.

ELECTRICAL MACHINERY

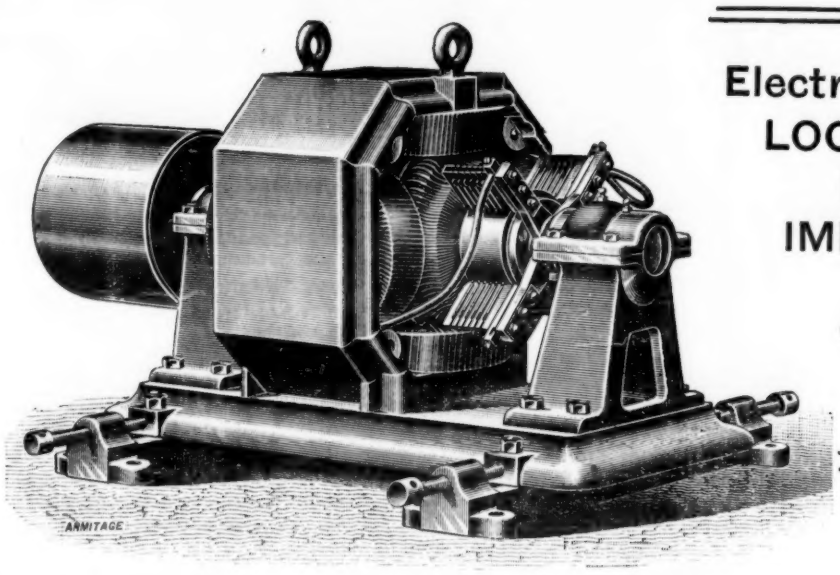
COMPLETE EQUIPMENTS FOR LIGHTING and POWER PURPOSES.

KEITH MOTORS and DYNAMOS

FROM 1 TO 500 H.P.

SPECIAL STUDY given to POWER TRANSMISSION PLANT for MINING PURPOSES.

ESTIMATES



Electric Hauling Engines, LOCOMOTIVES, and RAILWAYS on the IMPROVED CONDUIT SYSTEM.

Electric CRANES, HOISTS, PUMPS, DRILLS, &c.

ON APPLICATION.

The SANDYCROFT Foundry and Engine Works Company, Ltd.,

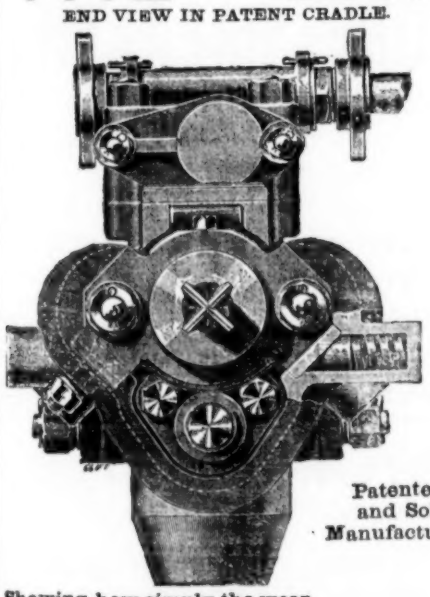
Telegrams: "SANDYCROFT," Hawarden.

Near CHESTER.

ESTABLISHED 1838.

THE "DAW" ROCK DRILL.

END VIEW IN PATENT CRADLE.



Showing how simply the wear in Guides is Automatically taken up.

Highest Award, International Mining Exhibition, London, 1890.
Highest Award and Medal, World's Fair, Chicago.

PATENT QUARRY BARS AND TRIPODS.

Improved Tunnel Columns. Steam and Air Hose.

Air Compressing Machinery. Hauling and Winding Engines.

Kohinoor Steel for Rock Drill and Miners' Borers.

On view at the Offices, where Catalogues, Estimates, and all Particulars can be obtained on Application.

Patentees and Sole Manufacturers, **A. & Z. DAW,** 11, Queen Victoria Street, LONDON, E.C.

Registered Telegraphic Address, "GULDNES, LONDON." A.B.C. Code. Fourth Edition.

Representatives in South Africa: Messrs. BROWN & McKENZIE, Johannesburg.

CHEAP TRANSPORT.

BY IMPROVED AERIAL WIRE ROPEWAYS. (Roe and Bedlington Patents.)

Advantages over other Systems:—

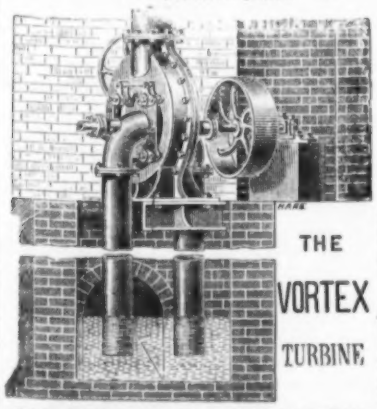
Economy in Cost and Working, Simplicity of Construction with High-Class Material, Long Spans and Steel Gradients Overcome, Reduced Wear of Cables and Few Supports.

Estimates, Pamphlets, & full Particulars on Application to the PROPRIETORS OF THE PATENTS

ROPEWAYS SYNDICATE, Limited.
150, Leadenhall Street, London, E.C.
Telegrams "ROPEWAYS, LONDON."

PRIZE MEDALS { London, 1862. Paris, 1867. Calcutta, 1884.

G. GILKES & Co., LIMITED, KENDAL.



Illustrated Descriptive Pamphlets, with numerous Testimonials supplied on application.

THE VORTEX TURBINE

- Self Contained.
- Easily Fixed.
- Economical.
- Efficiency Guaranteed.
- Regular in Speed

LARGELY USED FOR ORE CRUSHING AND ELECTRIC LIGHTING, AND MILLS OF ALL DESCRIPTIONS.

THE IRON AND COAL TRADES' REVIEW.

With which is Incorporated

The Bulletin of the British Iron Trade Association.

The IRON AND COAL TRADES REVIEW is extensively circulated amongst the Iron Producers, Manufacturers, and Consumers, Coal Owners, &c., in all the Iron and Coal Districts. It is, therefore, one of the Leading Organs for Advertising every description of Iron Manufactures, Machinery, New Inventions, and all matters relating to the Iron, Coal, Hardware, Engineering, and Metal Trades in general.

Offices of the Review: 222-225, Strand, W.C.
Remittances payable to W. SHAW.

BREAKFAST—SUPPER.

EPPS'S

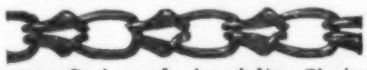
GRATEFUL—COMFORTING.

COCOA

BOILING WATER OR MILK.

TRIUMPH STEEL WELDLESS CHAINS.

MAXIMUM STRENGTH WITH MINIMUM WEIGHT.



Picture, Sash, and Chandelier Chains.
Horse, Cow, and Dog Chains.
Rigging and Halyard Chains.
Lavatory Pulls, special design, complete.
Crane, Haulage, and Engineers' Chains.

The Strongest and Most Attractive Chain in the Market.

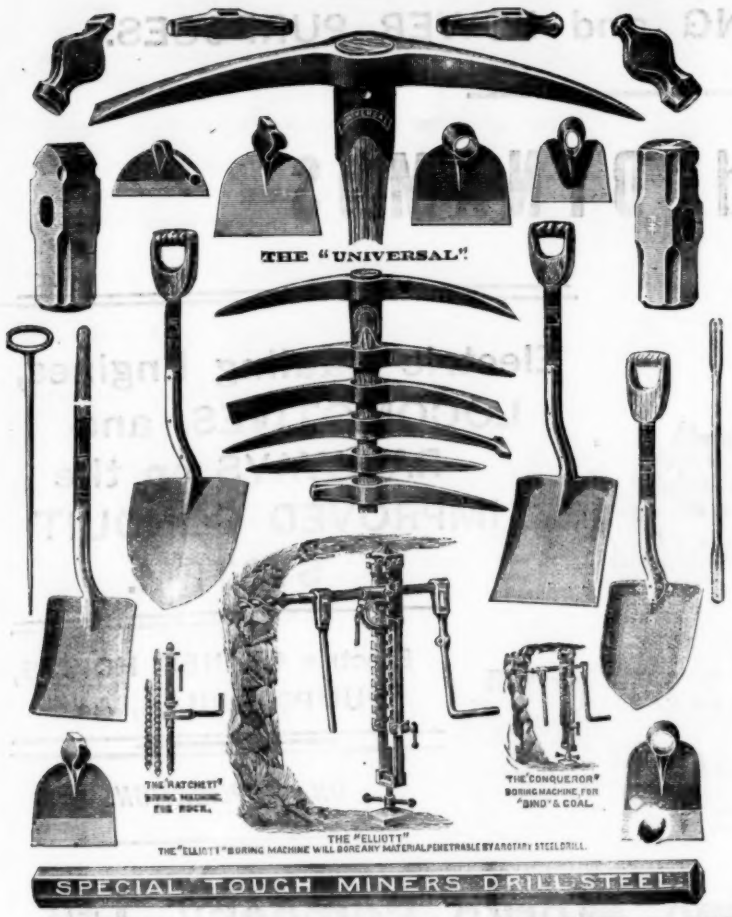
PRICES AND PARTICULARS ON APPLICATION.

MANUFACTURED ONLY BY
THE WELDLESS CHAIN COMPANY (LIMITED),
London Office: 101, LEADENHALL ST., E.C.
ST. HELEN'S, LANCASHIRE.

HIGH-CLASS TOOLS,

For Miners, Quarrymen, Contractors & Agriculturists,

OF ALL PATTERNS & FOR ALL MARKETS.


THE "UNIVERSAL"
THE "RATCHET" BORING MACHINE FOR ROCK.
THE "ELLIOTT"
THE "ELLIOTT" BORING MACHINE WILL BORE ANY MATERIAL PENETRABLE BY A ROTARY STEEL DRILL.
THE "CONQUEROR" BORING MACHINE FOR "BIND" & COAL.
SPECIAL TOUGH MINERS DRILL STEEL.

Makers of the

"UNIVERSAL" & "ACME" MINING & NAVVY PICKS.

HAND AND POWER BORING MACHINES FOR ROCK AND COAL.

PICKS, SHOVELS, SPADES, FORKS, HOES, AXES, HAMMERS, WEDGES, CROWBARS.

Special Tough Drill Steel, Shear, Cast, and Blister Steel.

SAWS, FILES, AND RASPS.

Importers of Hickory Handles.

THE HARDY PATENT PICK COMPANY (LIMITED),

Sheffield, England.

EXTERIOR VIEW—Showing Crushin Head.

Manufacturers of Mining Machinery and complete Macadam Plants.

GATES ROCK AND ORE BREAKER.

Capacity in Tons of 2000 Pounds.

Size 0—2 to 4 tons per hour.	Size 3—10 to 20 tons per hour.	Size 6— 30 to 60 tons per hour.
„ 1—4 to 8 „ „	„ 4—15 to 30 „ „	„ 7— 40 to 75 „
„ 2—6 to 12 „ „	„ 5—25 to 40 „ „	„ 8—100 to 150 „

Passing 2½ in. ring, according to character and hardness of material.

GREAT SAVING IN POWER. Adjustable to any Degree of Fineness.

The principle involved in this Breaker acknowledged to be the greatest success ever introduced into Stone Breaking machinery.

Send for Catalogue, containing over 500 references of Contractors, Miners, Railway Companies, Cement Makers, etc.

By the use of this machine cubical road metal can be produced at a low cost.

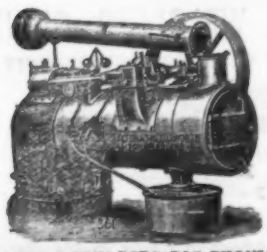
GATES IRON WORKS (A)

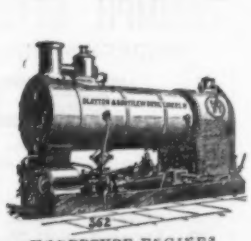
73a, QUEEN VICTORIA STREET, E.C., LONDON, ENGLAND.
44, Dey Street, New York, U.S.A.
WORKS: 50, South Clinton Street, Clybourn Ave and Willow Street, Chicago,
"AGENTS FOR GATES CORNISH ROLLS PULVERISER."

Simple, Durable, Compact, Dustless, giving a Finished Product direct from the Machine. The best Or Granulator for Leaching and Concentrating in the World.

CLAYTON and SHUTTLEWORTH,

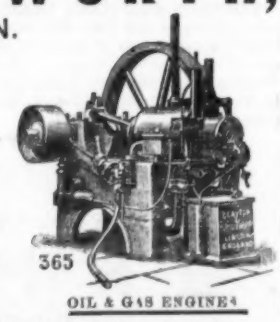
LINCOLN, & 78, LOMBARD STREET, LONDON.


PORTABLE & SEMI-PORTABLE ENGINES.



UNDERTYPE ENGINES.

TRACTION ENGINES.



OIL & GAS ENGINES

ALSO FIXED ENGINES, CORNISH BOILERS, THRASHING MACHINES, STRAW ELEVATORS, CHAFF CUTTERS, MAIZE SHELLERS, GRINDING MILLS, SAW BENCHES, &c.

UPWARDS of *57,000 ENGINES* and *THRASHING MACHINES* MADE and SOLD.

CATALOGUES FREE by POST to any PART of the WORLD.

EL MINERO MEXICANO.

The Mining and Industrial Journal of Mexico.

ESTABLISHED 1873.

Published in the City of Mexico every THURSDAY in the Spanish Language.

Taken by Mine Owners, Capitalists, Manufacturers, Merchants the richest and most liberal people, all over Mexico.

THE BEST ADVERTISING MEDIUM.

MEXICAN PATENT & TRADE MARK AGENCY,

3A, Independencia No. 1, City of Mexico.

RICHARD E. CHISM, M.E., Editor and Proprietor.

THE ENGINEERING AND MINING JOURNAL:

Every Miner, Metallurgist, Investor in Mining Property, and every Dealer in Minerals and Metals should subscribe for it.

Contains everything of interest and value in mining and metallurgy. The fullest mining news. The best coal, metal, and mining stock market reports.

It is the BEST ADVERTISING MEDIUM for all kinds of Machinery, Tools Hardware, and Supplies used in the mining regions; for Electrical Appliances and Machinery; for Metals of all kinds; for Mining Property for Sale, &c.

Subscription Price $5.00 a Year for the United States, Canada and Mexico, $7.00 a year for other Countries in the Postal Union. Published Weekly.

THE SCIENTIFIC PUBLISHING COMPANY

Booksellers and Publishers of Technical and Scientific Books.

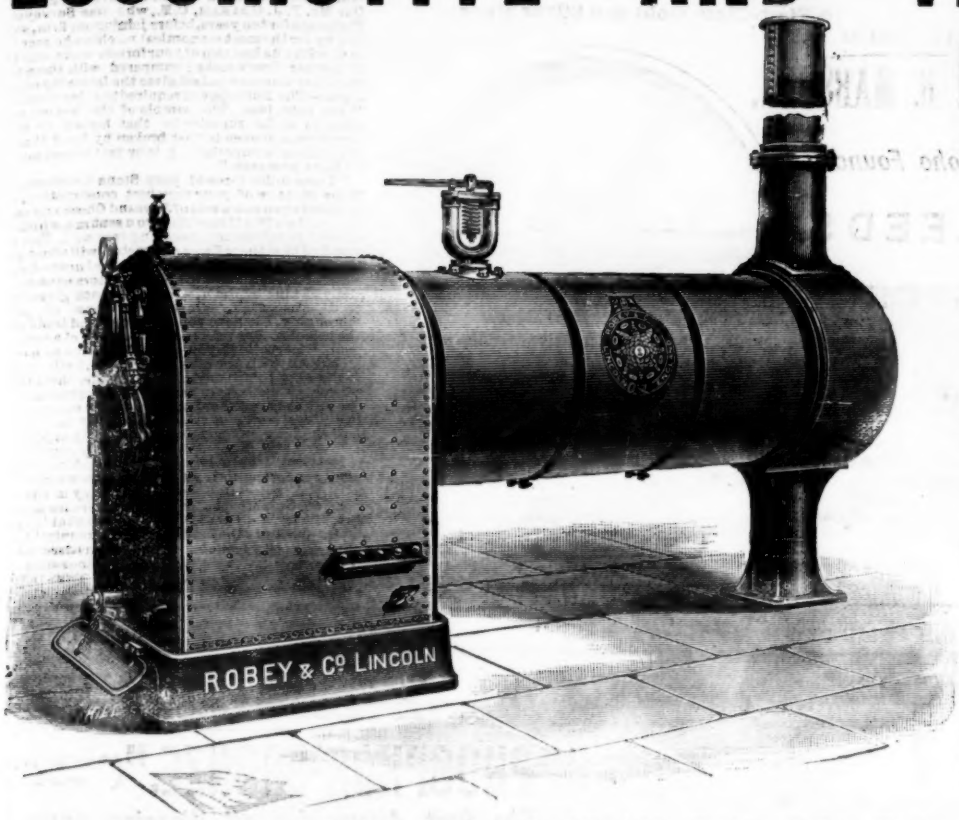
253. BROADWAY, NEW YORK.

LONDON OFFICE; 20, BUCKLERSBURY, E.C.

ROBEY & Co., LIMITED.

MANUFACTURERS OF

LOCOMOTIVE AND VERTICAL BOILERS



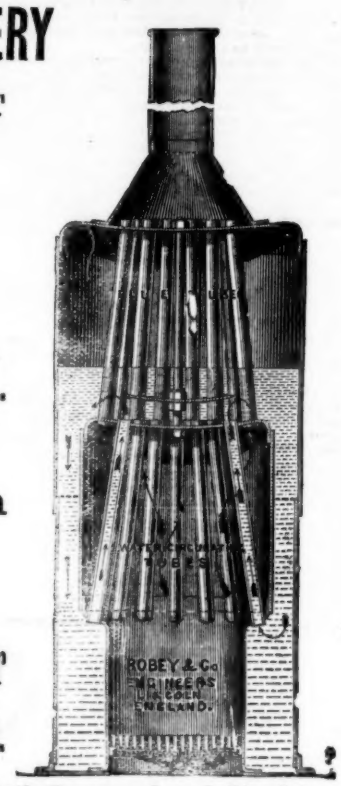
BY SPECIAL MACHINERY

OF PERFECT AND MOST MODERN CONSTRUCTION.

RIVETTED BY HYDRAULIC MACHINERY.

All Holes Drilled in Position.

Standard Sizes in Stock or Progress for Quick Delivery.



Also Manufacturers of Portable Engines, Semi-Portable Engines, Robey Engines and Locomotive Boilers combined (both Compound and Simple); Vertical Engines, High-Speed Engines, Horizontal Fixed Engines (Simple and Compound); Sugar Mills, Cornish and Lancashire Boilers, Winding Engines, Head Gears, Mine Pumps, Centrifugal Pumps, Patent Gas and Oil Engines, and every description of Machinery for Builders and Contractors.

GLOBE WORKS, LINCOLN.

SAFETY BLASTING IN COAL AND SHALE, ETC.

SETTLE'S Patent GELATINE WATER-CARTRIDGE

NOBEL'S EXPLOSIVES COMPANY (Limited), Glasgow, having acquired from Mr. MILES SETTLE the Sole Patent Rights of his Water-Cartridge System of Blasting have now arranged to supply through their local Agents all the Appliances required in connection therewith.

ADVANTAGES OF USING SETTLE'S PATENT GELATINE WATER-CARTRIDGE:

1.—SAFETY IN BLASTING. 2.—NO SMOKE. 3.—NO SPARK OR FLAME. 4.—NO FUMES. 5.—ALL COAL GOTTEN IN LUMPY CONDITION AND WITH A MUCH SMALLER PERCENTAGE OF SLACK THAN IN BLASTING WITH POWDER. 6.—GREAT SAVING OF COST OWING TO MORE EFFICIENT BLASTING, AND TO REDUCTION OF MANUAL LABOUR. 7.—SIMPLICITY OF THIS METHOD OF BLASTING.

Trained Experts will carry out experiments, and instruct Colliery Managers, Miners, &c., FREE OF CHARGE, on application to Nobel's Explosives Company (Limited), Glasgow, or to their Consulting Engineer.

The use of the WATER-CARTRIDGE is recommended by the Royal Commission on Accidents in Mines.

For full information apply to **NOBEL'S EXPLOSIVES COMPANY** (LIMITED), GLASGOW, or to H. ENFIELD TAYLOR, M.Inst.C.E., the Company's Consulting Engineer, 15, Newgate Street, Chester.

MANUFACTURERS OF GELATINE-DYNAMITE, DYNAMITE, DETONATORS, ETC. ETC.

From His Grace the Duke of Rutland.
Belvoir, Grantham,
December 1st, 1879.

SIRS,—Elliman's Royal Embrocation is used in my stables; I think it very useful.
RUTLAND.
Master of the Belvoir Hounds.

—o—

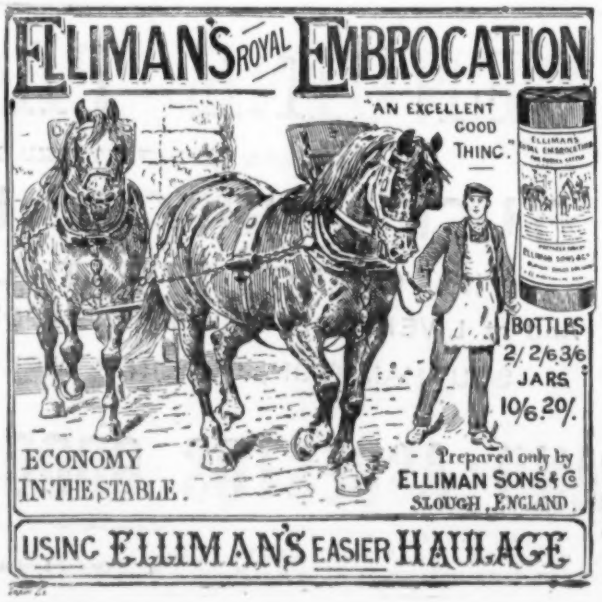
From the Earl of Harrington.
January 9th, 1889.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it the best that I can obtain. HARRINGTON.
Master of the South Wilts Hounds.

—o—

From Major M. J. Balfe,
South Park.
June 16th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I can highly recommend it.
M. J. BALFE.
Master of the Roscommon County Staghounds.


ELLIMAN'S ROYAL EMBROCATION
"AN EXCELLENT GOOD THING."
BOTTLES 2/ 2/6 3/6
JARS 10/6 20/
ECONOMY IN THE STABLE.
Prepared only by ELLIMAN SONS & Co SLOUGH, ENGLAND.
USING ELLIMAN'S EASIER HAULAGE

From Lord Haddington, Tyningham, Prestonkirk, N.B.
December 27th, 1885.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it indispensable in any stable, but especially in the stable of a Master of Hounds.
HADDINGTON.
Master of the Berwickshire Hounds

—o—

From R. Burdon Sanderson, Esq., Warren House, Belford.
July 10th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it very useful.
R. BURDON SANDERSON.
Master of Percy Foxhounds.

—o—

From Wm. J. Buckley, Esq., Penyfai, Llanelly.
July 16th, 1892.

DEAR SIRS,—I have much pleasure in recommending your Royal Embrocation. I always keep a stock in my stables and kennels. My farm bailiff has also found it of much value among my herd.
WM. J. BUCKLEY.
Master of Carmarthenshire Foxhounds.

THE INDIAN ENGINEER.

AN ILLUSTRATED WEEKLY JOURNAL FOR ENGINEERS IN INDIA AND THE EAST.

The "INDIAN ENGINEER" contains the latest and most authentic information on all subjects connected with Engineering enterprise in India and the East.

Subscribers when in England can make use of our London Office (1-2, Victoria Mansions, Westminster, S.W.), and can have letters addressed there and forwarded when travelling.

Correspondence invited on any subject which may be of interest to the profession.

RATES OF SUBSCRIPTION (payable in advance, including a copy of the INDIAN ENGINEER'S DIARY):—

Thick paper Edition, including postage		Thin paper Edition, including postage	
Yearly	Rs. 20	Yearly	Rs. 15
Half-yearly	Rs. 11	Half-yearly	Rs. 8
Quarterly	Rs. 6	Quarterly	Rs. 5

Published at 5-6, Government Place, Calcutta.

THE MONTAN ZEITUNG

For Austria, Hungary, and the Balkan States, Graz (Austria), has the largest circulation of any technical paper on the Continent, and

IS THE BEST MEDIUM

to advertise English Machinery and Appliances for

MINING, MANUFACTURING, AND ALL INDUSTRIAL PURPOSES

throughout Austria, Hungary, Servia, Bulgaria, Roumania, Turkey Montenegro, &c.

For general information and scale of Advertisements, apply to

F. MANSFIELD and CO.,
2, Lion Chambers BRISTOL.

Awarded the ONLY Gold Medal for Stonebreaker at the International Inventions Exhibition, in competition with all other makes.

THE BLAKE-MARSDEN 1884 Patent

Lever Hand-Hammer Action Stonebreakers and Ore Crushers,

NEW PATENT FINE CRUSHER OR PULVERIZER.

Fitted with Patent Reversible Cubing and Crushing Jaws in Five Sections, and with Surfaced Backs, requiring no White Metal in fixing. Crucible Cast Steel Levers and Toggle Cushions, Brass or Gun Metal Bearings throughout.

Positive Draw Back Motion taking no power to work, and entirely dispensing with the old expensive Steel Embedde .R Spring. The motion or length of Stroke of the Jaw can be increased or decreased at pleasure, to suit any material.

OVER **5000** IN USE.

70 First-Class Gold and Silver Medals

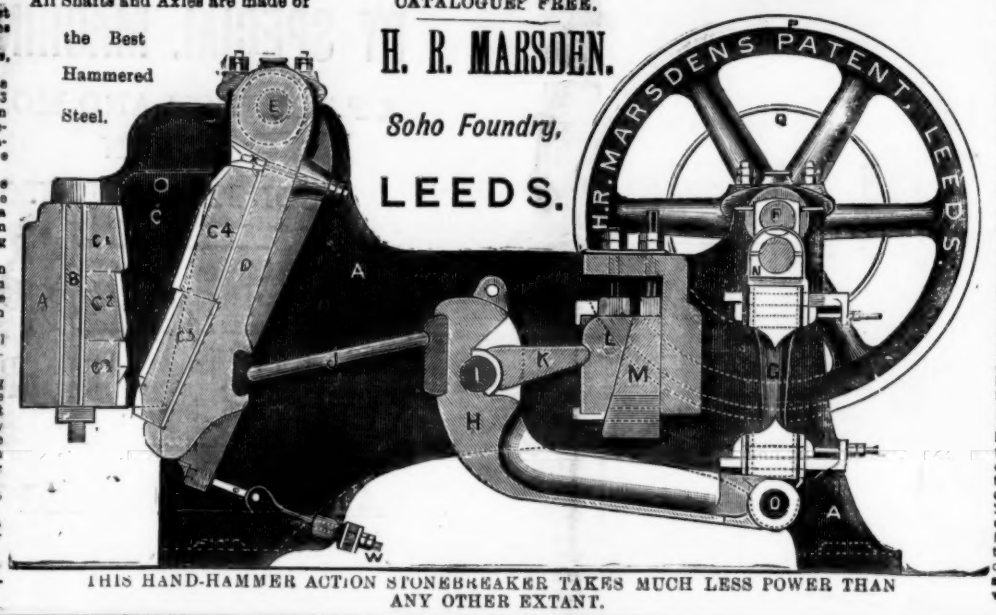
CATALOGUES FREE.

All Shafts and Axles are made of the Best Hammered Steel.

H. R. MARSDEN.

Soho Foundry,

LEEDS.



THIS HAND-HAMMER ACTION STONEBREAKER TAKES MUCH LESS POWER THAN ANY OTHER EXTANT.

PULVERIZER TESTIMONIAL

"The Fine Crusher we had from you in August last is an excellent pulverizer, and rapidly reduces hard material to a fine powder."

"The Pulverizer has now been working two months, and answers its purpose most satisfactorily."

"It is with the greatest satisfaction that we write these few lines in order to acquaint you that the 12×3 Pulverizer you provided us with, has quite fully given the results you represented to us, completely reducing our material to an impalpable powder at one operation. Should you refer any one to us we should have much pleasure in recommending the machine."

"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined fine crusher and sieving apparatus. I have tried it on a variety of ores and minerals, and it pulverizes them with equal success. You can put in a small paving stone and bring it out like flour."

"In reply to your favour, I have much pleasure in informing you that the 12×3 Pulverizer we had from you is giving us every satisfaction. The material we are operating on is an exceptionally hard one. I am well satisfied with its working."

"Our experience is that the motion and mechanical arrangements of your machine are the best for pulverizing that we have ever met with."

"The reports from our mines as regards the working of your Fine Crusher (20×5) recently supplied are very favourable, although we cannot quote you exact figures. On being got into position it was tried by hand, with the result that it made short work of the biggest pieces of ore we put into the hopper. You might say how long you would take to deliver another of the same size."

"As I once before stated, your machine is a perfect pulverizer."

"I am sure the machine will be a success, and a great one, and there is any amount of demand for such a machine. We can work it with 20 lbs. of steam and our engine, which is a 12-h.p., plays with the work, in fact we run the Stonebreaker and the Pulverizer both together with 35 lbs."

STONEBREAKERS AND ORE CRUSHERS. TESTIMONIALS.

"We have great pleasure in testifying to the efficiency of the 15 in. by 8 in Lever Hand Hammer Motion Stone Breaker you supplied us with. We find that our 4 h-p. Engine with ease drives it 250 revolutions per minute, and breaks six tons per hour of the hardest "Diorite" Whinstone: the sample is much before any hand-broken we have ever got done. Our Mr. P. J. GRAHAM, C.E., who was Surveyor of Highways for ten years, before joining our firm, says: It is by far the most economical machine he ever had to do with; he had two of your former make, and two of another firm's make; compared with these four machines your new patent gives the following advantages:—The horse-power required to drive is exactly 40 per cent. less. The sample of the broken macadam is so far superior to that broken by other machines, and even to that broken by hand that we can make no comparison. It is by far the best sample we have ever seen."

"I now order three of your Stone Crushers, size 15 by 10, to be of your very best construction, and to include two extra sets of Jaws and Cheeks for each. The last two 24×13 machines you sent me, which are at work in this colony, are doing very well. You will soon find that the railway contractors will adopt your machines in preference to the colonial ones—two of which I have. I know other contractors have had as many as nine of them, which have not given very good satisfaction. Once they know of yours thoroughly, I believe you will do a good trade with the colonies. For reference of the high character of your constructions you can refer to me as having used them with the very best results, both in New Zealand and this colony, and much prefer them to the colonial article, both in point of construction and less liability to go out of order. The material we are crushing is very hard blue stone, for railway ballast purposes. Push on with the order as quickly as possible: I do not think it necessary to have any engineering inspection. I have brought your machines prominently under the notice of all large contractors in this colony, likewise the Government. Many of the contractors have spoken to me in reference to their capabilities, and I could only tell them that they are by far and away the best and most economical I ever used. The very fact of me having purchased eleven from you at various intervals and various sizes, and two above 12 years ago, and having tried all the other makers is sufficient guarantee of the capabilities and the working of your machines. Yours in every way surpass all others."

TONITE

IS RECOMMENDED TO CONTRACTORS, MINERS, PIT SINKERS, QUARRYMEN, AND OTHERS, AS BEING THE SAFEST OF ALL EXPLOSIVES.

TONITE is a most efficient and economical blasting agent, and is largely in demand. It is exempt from freezing and the consequent dangerous process of thawing.

THE COMPANY ALSO MANUFACTURE

GELIGNITE, BLASTING GELATINE, &c.
DETONATORS, Suitable for all Classes of Explosives.
ELECTRIC DETONATORS, High or Low Tension.
ELECTRIC APPLIANCES, of all Descriptions.
SAFETY FUSE.

Address—THE COTTON POWDER COMPANY (Limited),
116, QUEEN VICTORIA STREET, E.C.

ONLY GOLD MEDAL FOR ALLOYS, INVENTIONS EXHIBITION.

"PHOSPHOR-BRONZE." (Cog Wheel Brand.)

The Best Alloys for all Wearing parts of Machinery, Bearings, &c.

BEWARE OF ALL IMITATIONS, & SPECIFY THE COMPANY'S MAKE.

BULL'S METAL, Ingots, Forgings, Castings, Stampings, Rods and Sheet. } Specially adapt for Mining Work.

The Phosphor Bronze Company, Ltd.
87, SUMNER STREET, SOUTHWARK, LONDON, S.E.

THE ROYAL BAR-LOCK TYPEWRITER

RANKS FIRST IN EVERY WAY.

SENT ON FREE TRIAL.

We Sell by MERIT alone, and all who wish to test our Machines should apply to

THE TYPEWRITER COMPANY, LTD.
12 & 14, QUEEN VICTORIA STREET.
Branches and Local Agents throughout the World.

TURBINES.

Little Giant Turbine.

The well-known "LITTLE GIANT" for developing Water Power with any fall from 3 feet and upwards.

CATALOGUES FREE.

S. HOWES,
64, MARK LANE, LONDON.
Telegrams: BARBEAU, LONDON.

TELEGRAMS: TUCKS LONDON.

TUCKS

GENUINE PACKING

IS ONLY MANUFACTURED BY

TUCK AND CO., LIMITED.
116, CANNON STREET, LONDON;
And at LIVERPOOL, CARDIFF, NEWPORT, BARRY, SOUTHAMPTON, DUBLIN & MELBOURNE.

WRITE FOR SAMPLES & PRICE.

INDIARUBBER, LEATHER, AND ASBESTOS GOODS.

EDITORIAL AND ADVERTISEMENT OFFICES:—18, FINCH LANE, E.C.
Printed for the Registered Proprietors by JOHN ROBERT GALE, at their Printing Offices, 1, DORSET BUILDINGS, SALISBURY SQUARE, in the Parish of St. Bride's, in the City of London.—January 26, 1895